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Assessing and creating the community environmental press in selected independent secondary schools.

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ASSESSING AND CREATING THE COMMUNITY ENVIRONMENTAL PRESS IN SELECTED INDEPENDENT SECONDARY SCHOOLS

A Dissertation Presented

By

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ASSESSING AND CREATING THE COMMUNITY ENVIRONMENTAL PRESS

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Dedicated to my children:

Andrew, Sarah, and Christopher

ABSTRACT OF THE DISSERTATION

Assessing and Creating the Community Environmental Press
in Selected Independent Secondary Schools

May 1971

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The purpose of the study was to investigate the similarities and differences of humaneness in selected independent secondary schools as perceived by the people in them. Further, the study was to determine the varied perceptions of humaneness held by the four grades and the faculty, and to identify demographic variables that were common to emerging patterns in the measured school environments.

For this study, humaneness was equated with Pace's definition of the environmental variable of community:

> A friendly, cohesive, group-oriented campus. There is a feeling of group welfare and group loyalty that encompasses the school as a whole. The atmosphere is congenial; the school is a community. Faculty members know the students, are interested in their problems, and go out of their way to be helpful. Student life is characterized by togetherness and sharing rather than by privacy and cool detachment.[1]

Eleven schools were chosen as a stratified sample by their

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[1] C. Robert Pace, College and University Environment Scales, Second Edition, Technical Manual, Princeton: Educational Testing Service, 1963, 1969. p. 11.

demographic characteristics: size, sex of the students, amount of structure, amount of co-ordinate education with schools for students of the opposite sex, and Church-related or secular. All the schools were residential institutions. The total faculty and thirty randomly assigned students from each grade were asked to participate. The instrument used to gather data for the study was the community scale of the College and University Environment Scales by Pace. Biographical data were obtained from each respondent and demographic data were obtained from each school.

The data were analyzed through the electronic data processing techniques of frequency counts, crosstabulation, and one way analysis of variance. Further, the data were submitted to statistical analysis, tests for significance, correlations and t tests.

The study found that the pairs of schools at either end of the score distribution differed from each other, but that all schools nearer to the mean were similar. All schools in the sample scored low when compared with the maximum possible score. The study further found that the perceptions of the four high school grades did differ, but not significantly. The perceptions of the faculty were found to to be significantly different from those of the students at the .001 level. The study found no significant correlation between the community score of a school and the assessed demographic characteristics. Some internal patterns emerged, however, as the high scoring schools were characterized by three survey items which did not characterize the low scoring schools:

1. This school has a reputation for being very friendly.

2. Most of the faculty are not interested in students' personal problems. (False)

3. The campus design, architecture and landscaping suggest a friendly atmosphere.

Across the sample four items concerning faculty and student roles and behaviors were scored in opposite directions by faculty and students:

1. The teachers go out of their way to help you.

2. Most of the faculty are not interested in students' personal problems. (False)

3. It's easy to get a group together for card games, singing, going to the movies, etc.

4. Counseling and guidance services are really personal, patient and helpful.

An ancillary finding of the study was that the perceptions of new students, who had been in the schools less than a year and a half, were not significantly different from those of students who had been in the institutions a longer period of time.

The investigator concluded that independent secondary schools, to the degree that they are typified by the schools in the sample, are not high on community and that they are largely similar in that aspect of their environments, rather than different. It was further concluded that the determinants of community are other than those demographic influences measured in the study. Another conclusion was that since faculty perceptions are significantly different from those of students, and always higher, the very differences could be the cause of low community in the schools. It was also concluded that since the eleventh grade scored lowest on the scale, there was a need for the establishment

of special programs for juniors. Finally, it was concluded that in research into this type of school environment using this instrument the perceptions of students in all grades can be used to characterize the environment.

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CHAPTER I

INTRODUCTION

Educators who have actually worked to reform conditions in schools and create alternatives to the present models of schooling are quick to realize that change must be made not just in the substance of the teaching, but in the very educational environment provided for learners. This need for an emphasis on the total environment for learning has directed researchers in the social sciences toward investigating the effects of physical, intellectual, and social forces on the growth and development of human beings. Research efforts not only center on investigating individual differences of learners but also on discovering environmental variables that describe differences and similarities in the settings in which people live and learn.

Further, the current research efforts focus on the amount of influence educational climates in homes, in colleges and universities, and, to a lesser extent, in elementary and secondary schools, have on the stability and change in human characteristics. Greater knowledge about the ways schools differ and are similar can contribute to the discovery of what climates are most appropriate for certain learners to acquire particular skills, knowledge and attitudes - to better prepare students for the different societies of 1980 and even for the year 2000 and beyond. The present study examined the conditions and happenings in selected secondary schools and provided information to educators who are concerned with the reality existing in those schools and desire to reform educational programs, when reforms are needed.

Statement of the Problem

Independent, or private, schools have long been part of American education, at times antedating public schools. In the pluralistic society of the United States it is important to maintain options in education, and schools which are independent of the public control can provide desirable options. At the secondary level many independent schools have a history of successful college preparation, but as public education throughout the country improves, independent schools must seek new reasons for existence if they are to continue as a viable alternative. After continual growth in student enrollment at between two and three percent a year for the previous thirteen years, the rate of growth in independent schools has slowed during the past two years to just over one percent increase in students.[1] Independent schools must at least begin to strive for self-renewal and examination of the way in which they accomplish their objectives and conduct their educational programs.

Many educators in independent schools cite the high degree of humaneness in their institutions as one of their reasons for existence, making claim to autonomy, flexibility, and independent development in learners. However, this investigator believes that this may be an assumption on the part of administrators rather than an actual characteristic of education in independent schools. For example, increased student dissatisfaction with independent schools supports the possibility

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[1] "Annual Statistics NAIS Member Schools", NAIS Report, Number 35, December 1970.

that the schools are not as responsive and conscious as administrators might think. As campus unrest began to permeate the independent secondary schools during 1967-1968, students asked increasingly for more involvement in the life of the school, for more openness of administration and faculty - in short, for more humane schools.[2]

The problem, then, is that the intensity of humaneness may be perceived and desired in varying degrees by different groups within the schools, and schools may differ in the extent of humaneness in the educational environment.

Purpose of the Study

The purpose of the study was to investigate the similarities and differences of selected independent secondary schools on the degree of humaneness in those schools as perceived by the people in them. The study determined the varied perceptions of humaneness held by different sub-groups in the designated institutions and identified demographic variables that were common to emerging patterns in the measured school environments. The study also recommends how the sense of community may be fostered and strengthened in independent secondary schools.

Meaning of Educational Environment and Community

Educational environment, as the term will be used in this study,

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[2]Alan R. Blackmer, An Inquiry into Student Unrest in Independent Secondary Schools. Boston: National Association of Independent Schools, 1970.

means the conditions, forces and external stimuli which impinge on the lives of individuals, fostering the development of individual characteristics. The environment is seen as a complex system of situational determinants that exerts an influence upon individuals in that environment.[3] These determinants may be socially, physically or intellectually significant factors. In an analysis of the role of the environment in behavior, Anastasi defines such determinants as direct influences resulting in behavioral change.[4] Bloom,[5] Pace,[6] Stern,[7] and others also view environment as a powerful determinant of behavior. Bloom characterizes environment as follows:

> We regard the environment as providing a network of forces and factors which surround, engulf, and play upon the individual. Although some individuals may resist this network, it will only be the extreme and rare individuals who can completely avoid or escape from these forces. The environment is a shaping and reinforcing force which acts upon the individual.[8]

Further, in answer to the furor raised by Jensen about the lack of

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[3]Robert L. Sinclair, "Elementary School Educational Environment: Measurement of Selected Variables of Environmental Press". Unpublished Ed.D. dissertation, University of California at Los Angeles, 1968.

[4]Anne Anastasi, "Heredity, Environment and the Question 'How?'." Psychological Review, Volume 65 (1958, pp. 196-207.)

[5]Benjamin Bloom, Stability and Change in Human Characteristics, New York: John Wiley & Sons, Inc., 1964.

[6]C. Robert Pace, College and University Environment Scales, Second Edition, Technical Manual, Princeton: Educational Testing Service, 1963, 1969.

[7]George Stern, "Characteristics of the Intellectual Climate in Colleges and Universities", Harvard Educational Review, Vol. 33, Winter 1963.

[8]Benjamin Bloom, op. cit., p. 187.

significant influence of the environment on intelligence, Bloom suggests that the environment's primary effects are on interest, attitudes and achievement rather than I.Q. gains.

> The educator must be an environmentalist.... It is through the environment that he must fashion the educational process. Learning takes place within the child; the educator tries to influence this learning by providing the appropriate environment.[9]

The conceptualization of environment used in this study is based on the assumption that behavior is a function of the transactional relationship between the individual and his environment. As Dewey describes, learning is dependent on experience.[10] He also suggests in the same work that the nature and quality of educational experiences are largely determined by the characteristics of the learners' environment. There are a number of theories of learning and behavior which support this assumption, as do the studies in the methodological assessment of personality by Stern, Stein and Bloom.[11] By viewing the environment in terms of those aspects which are significant for the determination of behavior, it is possible to extract and classify important portions of the environment in which the individual lives.

The environment, as it is perceived by the individuals in it, is

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[9] Benjamin Bloom, Letter in the Harvard Educational Review, Volume 39, Summer 1969, pp. 419-421.

[10] John Dewey, Experience and Education, New York: The Macmillan Company, 1938.

[11] George Stern, M. Stein, and Benjamin Bloom. Methods in Personality Assessments. Glencoe, Illinois: Free Press, 1956.

referred to by Murray as the "Beta press".[12] Murray suggests that if an individual believes an aspect of his environment signifies something, it is this perception that will determine his behavior. In other words, it is the individual's perception of his environment rather than the environment itself which serves as the determinant of behavior.

This study describes one aspect of school environment as perceived and reported by individuals in that environment. That one aspect of environment is characterized by the collective perceptions of individuals and provides a probable stimulus for promoting particular individual characteristics. Pace,[13] Sinclair,[14] and Stern,[15] in their studies of educational climates, support this perceptual approach to describing environment.

The aspect of environment which was measured in this study is what Pace has labeled "community". It is one of five variables that he found to differentiate among institutions of higher education. As defined by Pace, the environmental variable of community is:

> a friendly, cohesive, group-oriented campus. There is a feeling of group welfare and group loyalty that encompasses the school as a whole. The atmosphere is congenial; the school is a community. Faculty members know the students, are interested in their problems, and go out of their way to be helpful.

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[12] Henry A. Murray, Explorations in Personality. New York: Oxford University Press, 1938.

[13] C. Robert Pace, op. cit.

[14] Robert L. Sinclair, op. cit.

[15] George Stern, op. cit.

> Student life is characterized by togetherness and sharing rather than by privacy and cool detachment.[16]

This study documents the range of institutional diversity among selected independent secondary schools on the single variable of community, which is equated, for the purposes of the present investigation, with humaneness.

Significance of the Study

This investigation is important to the future of independent schools because it provides in-depth information on the compelling variable of community in the designated institutions. The study provides data that a faculty and administration can discuss and reflect upon in order to check on the status of the intended environment, and to clarify the directions in which they plan to promote change. A study committee can compare its school score and sub-group scores with other schools. However, more fruitful would be the study of the way the respondents at a particular institution answered the survey, item by item. A detailed examination of the results can reveal what accounts for the community environment in the school. It can foster the kind of open, friendly, sharing relationships desired by many students. Further, it can be of significant service in planning and improving the humane aspect of school environment which is seen by so many scholars and critics of education today as vital for developing affective characteristics in students.

Of particular theoretical significance is the need to recognize

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[16] C. Robert Pace, op. cit., p. 11.

the diversity existing among independent secondary school environments. Different environments affect children in different ways, and to ignore variance in school environments is to limit understanding of behavioral differences in students. Very little is known about secondary school environments at the present time, especially the ways in which various secondary schools differ on this specific environmental characteristic. The data help to clarify the differences in schools and add to the volume of knowledge about secondary schools.

Finally, this study should help to fulfill a lack in school evaluations of the extent to which students are progressing toward the attainment of the school's objectives. Schools now measure the characteristics of students before they enter and their achievement, attitudes and interests while in the institutions. Still needed in most schools is this type of measure of the environment - the atmosphere - in which student learning and development occur.

Approach

The study of community according to Pace's definition has proven to be a vital way of assessing the degree of humaneness in a school environment. Community has to do with the relationship between faculty and students and among the students themselves. This study assumed that schools with a strong community will produce more effective, more fully-functioning students for life. Evidence for this was seen in the Eight Year Study reported in Adventure in American Education. It was found that when students were freed from the demands of conventional academic preparation for college they developed a desire to learn,

zest and vigor, and power of attack which showed a readiness for college work well beyond that of students prepared in a conventional manner.

The data for the study were gathered through administration of the community scale from the second edition of College and University Environment Scales developed by Pace out of Stern's earlier College Characteristics Index. The purpose of CUES is to measure institutional differences and each scale of CUES represents a dimension, or set of items, on which institutions differ from one another. The approach of CUES is educational-sociological rather than psychological in that the characteristics of the institutions rather than the students are the primary concern.

In approaching this study of the environmental press of community, a number of possible influences on this variable were identified through consultation with experts,[17] through planned observation of independent schools, and through systematic examination of selected literature on environments. Such things as the size of the school, whether the school is religious or secular, the sex of the students, the stated rules and regulations, the age and grade level of the students, the length of time a student or teacher has been in the school, whether the school is residential or day, and the course of study the student is following may all influence his perceptions of the environmental variable of community. These factors were correlated with the

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[17] Acknowledgement is made of a meeting with Professor Pace in November 1970, arranged by Professor R. L. Sinclair.

results of the survey to determine what were the common patterns of influence. For the purposes of studying the environmental variable of community such student factors as socio-economic level, parental occupation, level of parental education, and I.Q. of the student were not considered in the present study because of its focus on the schools rather than on the individuals.

The treatment of the data attempted to discover the existence or non-existence of the community aspect of environment and to detect patterns existing in the selected schools.

The collective perceptions of students and faculty of the community aspect of the environment were used as the source for describing that environment. To find out the perceptions of the respondents, they were administered an instrument consisting of 30 statements about conditions which exist in secondary schools, to which they responded either true or false.

Schools for the study were drawn from a variety of independent secondary schools, giving a cross-section of the variety that exists in that sector of education. Eleven schools were chosen, representing four states, varying degrees of social status, urban and rural locations, varying sizes, differing conditions of school buildings and different educational problems. The schools were, however, all college preparatory boarding institutions. Because of the comprehensive nature of the school sample there was opportunity to discover a wide variation in community and a substantial base for generalization of research findings.

The students surveyed were drawn from the ninth through twelfth grades of the selected schools. They were surveyed as a stratified random sample, using 30 students in each grade. In the case of a grade contining fewer than 30 students, the total universe of the cell was surveyed. Student respondents were chosen through random assignment, and the full faculty of each school was also surveyed.

Some alterations in wording were made to the CUES community scale to reflect secondary school terminology. Data were also gathered from the administration of each school on a face sheet, and copies of the school rules and regulations were obtained. The items in the survey were answered on electronically scored answer sheets and scored electronically, with the data being transferred to IBM cards for data processing by computer.

Each item in the survey was scored by a 66+/33- method, as in opinion-polling. Items answered in the keyed direction by a two to one concensus are regarded as characteristic of the institution, in both the positive and negative direction. The score for the survey was obtained as follows:[18]

a. Add the number of items answered by 66 percent or more of the respondents in the keyed direction.

b. Subtract the number of items answered by 33 percent or fewer of the students in the keyed direction.

c. Add 30 points to the difference, so as to eliminate any possibility of obtaining a negative score.

Scores were obtained for the school as perceived by all students, for

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[18] Pace, op. cit., p. 13.

the school as perceived by the faculty, and for the school as perceived by each of the four grades.

Because of the scoring system used for the instrument in this study there is a low variance in the distribution of scores within a given institution. Reliability, by most methods, is a function of a wide distribution of scores. Therefore, for a single institution, it is not possible to estimate reliability according to the typical correlational and variance methods. Pace suggests that the reliability of the instrument be estimated according to Cronbach's coefficient alpha,[19] which takes into account the sum of the variances on each item rather than the average or mean. The reliability estimates thus obtained could be compared to Kuder-Richardson formula 20 results. The K-R formula 20 is identical to coefficient alpha when items are scored zero or one. The reliability estimate used in this study was Hoyt's Analysis of Variance[20] method of determining internal consistency, a method similar to the two cited by Pace.

Two types of validity are claimed for the community scale - content and concurrent. The instrument used in this study is an adaptation of the instrument Pace used in his studies of college and university environments. Pace has subjected the CUES scales to rigorous analysis and has found that the content of the measure is repre-

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[19] L. J. Cronbach, "Coefficient Alpha and the Internal Structure of Tests." Psychometrika, 1951, XVI, pp. 297-334.

[20] C. J. Hoyt, "Test Reliability Estimated by Analysis of Variance." Psychometrika, 1941, VI, pp. 153-160

sentative of the environment being considered[21] and therefore can be judged to have a high degree of content validity. Further, Pace has made numerous comparisons of CUES results with the results of other indicators, showing relatively high correlations.[22] His conclusion is that campus atmosphere, as measured by CUES, is a concept buttressed by a good deal of concurrent validity.

This study, then, obtained student and faculty perceptions of the humaneness in their schools in response to statements about secondary school environments. These data were quantitatively analyzed through crosstabulation to determine the characteristics of the environments. The students' perceptions were compared with the faculty perceptions and with other data about the schools to determine possible influences on their perceptions.

Four major questions and several expectations guided the investigation into the community aspect of school environments.

1. What are the similarities in community among the selected independent secondary schools?

2. What are the differences in community among the selected independent secondary schools?

3. What are the patterns in community common to the selected independent secondary schools?

4. What differing perceptions of community are held by the sub-groups within the selected independent secondary schools?

The investigator expected to find that small schools scored higher on

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[21] Pace, op. cit., p. 36f.

[22] Pace, op. cit., p. 46ff.

community than large schools. He expected that girls' schools would have a higher score than boys' schools. The investigator also hoped to find that schools under religious auspices would score higher on community than secular schools. He expected that freshmen and sophomores would score their schools higher than juniors and seniors, and that faculty perceptions would differ significantly from the students. Schools with a high degree of structure, as evidenced by their stated rules and regulations, were expected to score lower. A difference was also expected according to the length of time a student had been in the school.

Chapter II presents a theoretical background of the study, consisting of a review of literature dealing with the need for humane environments and a review of research supporting the study and related to it. Chapter III explicates the procedures involved in the study. It describes the selection of the schools and the respondents, contains details of the adaptation of the instrument, the reliability and validity of the instrument, and the sampling methods. Finally, it reports the methods of data collection, organization of the data, and the approach to data analysis. Chapter IV reports the findings of the study and interprets them. Chapter V summarizes the study, draws conclusions, and makes recommendations for action by participating schools. It also makes recommendations for further research.

CHAPTER II

THEORETICAL BACKGROUND OF THE STUDY

Since this study uses the collective perceptions of students to characterize the community aspect of environment in independent secondary schools, this review of literature will consist of overviews of conceptual and investigative writing in two areas: the nature and importance of humaneness in schools; and the foundations of the study. The first area provides a guide for investigating the community aspect of independent secondary school environments and the second area provides the theoretical referent for using individual perceptions as a means for describing environments.

Humane Environments in Schools

Recently the literature of education has burgeoned with contributions from psychiatrists, psychologist, educators and behavioral scientists calling attention to the need for humane environments in schools; for an emphasis on the affective domain of learning; and for the use of human relations techniques in working with people in organizations. The concerns are not altogether new, but the point of view has changed from the beginning of the century and although some of the ideas have been extant for many years they have not found application in schools until recently. Independent schools, although they are different from public schools in their form of government and their constituency, stand under the same judgement of their inhumaneness and educational objectives. While most of the writers cited below were

not concerned about education in independent schools, (indeed some were not concerned about schools at all) their ideas are equally applicable in that sector of education.

Many schools seem to be run according to the earliest of organizational theories, that of the "principles of scientific management", made popular by Frederick W. Taylor at the beginning of the century. This movement, which gave rise to efficiency experts, was generally product-oriented and not concerned with the needs of people in organizations. These "classical" principles have greatly influenced school administrators who were educated in these concepts as recently as the early post World War II years.

While Taylor's principles were still in use another movement began to arise out of the work of Elton Mayo which did consider the people, but was still product-oriented. Mayo modified Taylor's ideas radically in the 1920's by suggesting that the psychological and social aspects of an organization could have great effect on the productivity of workers. It is the ideas of this "human relations movement" - morale, group dynamics, democratic supervision, and personnel relations - not yet widely dispersed throughout schools - which are the foundation of humane concerns for the people in organizations.

Mayo found, in his Hawthorne Studies, that workers responded positively and their production increased when management viewed them as important, both as individuals and as a group. They were no longer performing unchallenging, unappreciated tasks, but were participating in the operation and future of the company. Mayo demonstrated the need for

management to study and understand the relationships among people.

> In these studies.....the most significant factor affecting organizational productivity was found to be the interpersonal relationships that are developed on the job, not just pay and working conditions. .....Mayo also discovered that when the group felt that their own goals were in opposition to those of management, as often happened in situations where the workers were closely supervised and had no significant control over their job or environment, productivity remained at low levels or was even lowered.[1]

John Dewey voiced similar concerns to Mayo's in 1916, stating that education will vary with the quality of life which prevails in the group to which students belong.[2] He suggests certain traits which should be emphasized for those groups in order to build community: unity, community of purpose and welfare, loyalty to public ends, and mutuality of sympathy. Dewey further suggests that the problem is to extract certain traits of forms of community life which actually exist, and employ them to criticize undesirable features and suggest improvement. For Dewey, the sharing of a common end is the essence of community, which is characterized by communication and consensus. In a teacher-student relationship, if the teacher does not obtain the consent of the person who is used in attaining goals or does not consider the emotional or intellectual disposition of that

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[1]Paul Hersey and Kenneth H. Blanchard, Management of Organizational Behavior. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1969. Passim, F.J. Roethlisberger and W.J. Dickson, Management and the Worker. Cambridge, Massachusetts: Harvard University Press, 1939.

[2]John Dewey, Democracy and Education. New York: The Macmillan Company, 1916.

person, no community is formed between them, no matter how closely their respective activities touch one another.

> In order to have a large number of values in common, all members of the group must have an equable opportunity to receive and to take from others. There must be a large variety of shared undertakings and experiences. Otherwise, the influences which educate some into masters, educate others into slaves.[3]

Clearly, what Mayo and Dewey are both saying is that people are motivated through sharing - through having some influence on the goals of the organization. In industry and in education people need to work together, manager and worker, teacher and student, to achieve the goals of the organization. Mayo and Dewey imply the need for schools to change their structure in order to motivate students.

Abraham Maslow relates individual needs to motivation by suggesting that individual behavior is motivated by the need that is most potent to that person at a particular time.[4] Maslow states that there is a hierarchy into which human needs arrange themselves, beginning with the physiological needs (food, clothing, shelter, etc.) and moving through security needs (safety from deprivation, disease, etc.), affiliation needs (being accepted as a person), esteem needs (being given recognition or love), to self-actualization needs (becoming what one is able to be). While all needs may be operating within a person at the same time, the lower needs of physiology and security

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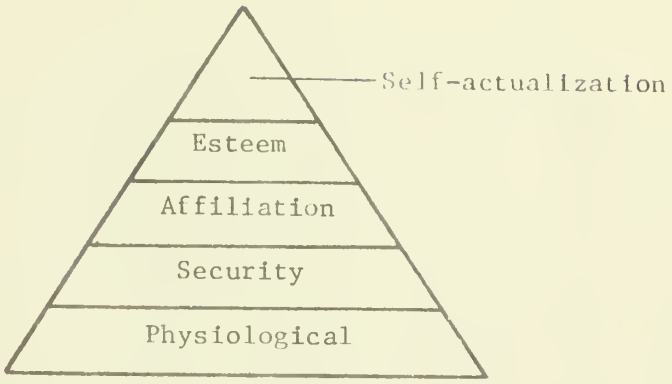
[3] Dewey, op. cit., p. 84.

[4] Abraham Maslow, Motivation and Personality. New York: Harper and Brothers, 1954.)

must be substantially satisfied before an individual can attend to the higher needs.



If a person is hungry or in physical danger he will not be worried about being accepted or loved or realizing his potential. For most students today, especially those in independent schools, the two lower needs are adequately met and they are then operating at the need level of affiliation, or perhaps higher. As each of the lower needs becomes fulfilled the next need in the hierarchy becomes prepotent for individual. Educators who do not understand this and who are consequently trying to motivate students by fulfilling lower level needs are in for a difficult time. The success reported by Mayo in the Hawthorne Studies, cited above, can be seen in Maslow's scheme. The management of the company achieved greater success after they began to fulfill the higher needs of the employees. The application to education is clear from a motivational point of view. Schools must be concerned with finding out at what need level students are operating and then meet them there.

Maslow, however, suggests that meeting student needs is, in itself, a goal of education - that meeting needs should be more than a means to achieving something else. He suggests that education

should seek to help students self-actualize and that "a child cannot reach self-actualization until his needs for security, belongingness, dignity, love, respect and esteem are all satisfied."[5]

Among the theories of orgnizational behavior is one which seeks to explain the behavior of administrators through the view they hold of the nature of man. While the author, Douglas McGregor, was concerned with business organizations the theory has been applied to education by Carl Rogers, who sees it as the conventional philosophy of most educational administrators.[6] According to McGregor's "Theory X",[7] the assumptions an administrator makes about human nature result in centralized decision-making, a superior-subordinate pyramid, and external control of work. In schools these assumptions would be that students are apathetic or resistant to the educational goal; that they prefer to be directed, prefer security, and avoid responsibility. Consequently, they must be coerced, cajoled, directed, and threatened toward the goal which the administrator or someone higher up has defined. Principals who schedule students' time so that they are never free or who give no options for elective courses or independent work may be seen as operating out of a "Theory X" framework. Administrators and teachers who hold "Theory X" assumptions find that

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[5] Abraham Maslow, Goals of Humanistic Education. Big Sur, California: Esalen Institute, 1968. p. 15.

[6] Carl R. Rogers, Freedom to Learn. Columbus, Ohio: Charles E. Merrill Publishing Company, 1969. p. 208.

[7] Douglas M. McGregor, Human Side of Enterprise. New York: McGraw-Hill Book Company, 1960.

they are seldom disappointed - students will shirk responsibility when they have the chance and will engage in passive-aggressive behavior, thus convincing their "superiors" that external control is clearly appropriate for dealing with unreliable, irresponsible and immature people. The crux here is that students are not loved by teachers or administrators and they react accordingly.

In contrast to this theory McGregor also presents an opposite one, "Theory Y", in which people are not seen as lazy and unreliable by nature, but can be self-controlled, self-directed, self-motivated and creative. The teacher who holds this view of man seeks not to structure, control, nor closely supervise the environment of the student, but to unleash the student's potential. The teacher attempts to help the student mature by exposing him to progressively less external control and allowing him to assume more and more self-control. Within this kind of environment the student is able to achieve the satisfaction of affiliation, esteem, and self-actualization needs. Students for whom these needs cannot be met in the school environment will look to other locations and activities - which may explain the attrition rate and student dissent in independent schools.

Rogers states that schools should be places for people to grow and by this means that faculty can grow as well as students through learning as a shared experience. Schools should not be places where some people only teach and others only learn.

> The task of the administrator is to so arrange the organizational conditions and methods of operation that people can best achieve their own goals by also furthering the jointly defined goals of the institution.

> The administration [sic] finds that his work consists primarily of removing obstacles such as "red tape", of creating opportunities where teachers and students and administrators (including himself) can freely use their potential, of encouraging growth and change, and of creating a climate in which each person can believe that his potential is valued, his capacity for responsibility trusted, his creative abilities prized.[8]

With Maslow and Rogers, then, there is a turning point in motivation theory. There is no longer the product-orientation of motivation through structure or motivation through meeting needs, but the emphasis is on the development of persons as an end. Perhaps this is best stated by Peter F. Drucker, who says,

> Because our society is rapidly becoming a society of organizations, all institutions.....will have to hold themselves accountable for the "quality of life" and will have to make fulfillment of basic social values, beliefs, and purposes a major objective of their continuing normal activities rather than a "social responsibility" that restrains or that lies outside of their normal main functions. .....
>
> This will apply increasingly to the fulfillment of the individual..... It will increasingly be the job of management to make the individual's values and aspirations redound to organizational energy and performance. It will simply not be good enough to be satisfied..... with "satisfaction", that is with the absence of discontent. Perhaps one way to dramatize this is to say that we will, within another ten years, become far less concerned with "management development" as a means of adapting the individual to the demands of the organization and far more with "organizational development" to adapt the organization to the needs, aspirations, and potential of the individual.[9]

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[8] Rogers, op. cit., p. 208.

[9] Peter F. Drucker, Technology, Management and Society. New York: Harper and Row, Publishers, 1970. pp. 34-5.

Drucker suggests that these needs, aspirations and potentials can best be met in the community of an organization rather than in a family which is private. Community can be seen as the locus in which an individual's life centers and through which he gains access to function, achievement and social status. For the adolescent this community should be found in the school. This is acutely apparent in the case of the independent boarding school, which must provide a total environment. While the literature pertaining specifically to independent schools is limited, it is rife with broader concepts which have application to this sector of education. A number of people are concerned with the dehumanization in schools and suggest concepts which could be applied in them which would make them more humane - which would foster the community suggested and desired by the people cited above.

M. Robert Wilson states that educators seem to forget that education must be based upon interpersonal transaction and is developmental in nature and humanized in execution.[10] He feels that dehumanization is not new in schools of this era, but has its origins in the attitudes and sets characteristic of the system and therefore characteristic of the people who shape the system, and by choice or default characteristic of the people who constitute the system. He states that ideally the formal educational process should seek an alliance between

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[10] M. Robert Wilson, M.D., "Humanizing the Automated School". Unpublished speech given to the Student Personnel Section of the Minnesota Education Association, November, 1968.

student and teacher and that dogmatism, side-taking, combat, and the victor-victim polarity are incompatible with it. He suggests, as a major axiom of education, that effective learning is proscribed when an adversary system exists.

> The fundamental mode requisite to the forging of an alliance is the capacity to share, to commune: This necessarily means that the teacher must be both the stimulus and also the agency or vehicle of the educational process. He must be free and willing to expose himself, reveal his personage, which, if he is well qualifed, will contain the necessary knowledge to be shared as well as the humanity which allows the sharing to be palatable and acceptable. Often, tragically, the index of success, instead of self-revelation and identification providing the increments, depends upon the titre of discipline and control ascribable to the teacher. How often is the "best" teacher synonymous with the teacher who is the effective disciplinarian, who exerts effective control?[11]

What Wilson is saying is much the same as McGregor's "Theory X" in operation. Students understand that the "name of the game" in school is control, and respond by demonstrating their need for the same, thus precluding alliance and guaranteeing combat - and, pathetically, eliding learning. Wilson goes on to comment on the tragedy of contemporary education in which cognition and perception are given dominion over affect, which is simply absent from the curricula of most schools.

> Affects, as well as cognitions and percepts must enjoy congruous expression in educational curricula; when they do not receive such status, affects are expressed through extra-curricular vehicles, such as protests, sit-ins and the like. How a student

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[11] *ibid.*

> feels about content, design and institution must be solicited along with what he knows and perceives.[12]

Of concern, then, to educators ought to be the quality of relationships existing between teachers and students. Independent school administrators have assumed that these relationships were good because the ratio of teachers to students was significantly lower than in public school and the classes were also smaller. In boarding schools faculty were assumed to know students because they see them in the dining hall and the dormitory. But Fraser points out that the community aspect of the school environment must be planned rather than assumed to be present and simply allowed to grow.

> There is little point in pretending that a school is a large family when it is not. It is perfectly possible for an institution to make arrangements for pastoral care, and personal growth in a place where educands are known as persons and where they can know and like or even love others. But it is not possible to do this by pretending that these arrangement grow "naturally" as in a family if only the head and his wife look beneficent or conduct something called family prayers.[13]

A concept which could further this personal growth through the teacher-student relationship is Snyder's adult "Guarantor",[14] which he sees as a fundamental new kind of relationship. The main role of the Guarantor is to recognize the "personhood" of the young person by

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[12] idem.

[13] W.T. Fraser, Residential Education. Oxford: Pergamon Press, 1968.

[14] Ross Snyder, "The Ministry of Meaning", Risk, Vol. 1, Numbers 3 and 4, Third and Fourth Quarter, 1965. Geneva, Switzerland: Youth Departments of the World Council of Churches.

noticing him personally, talking to him as an equal, and by holding an image of him as dependable. The Guarantor is not a father-mother substitute, nor is he a peer, but an adult who has a respected place in some activity valued by the young person. The Guarantor is a significant other, who is farther along in life and who establishes young people with a co-personal world. The Guarantor enjoys the young person, and thinks he is worthy of being listened to and understood. Snyder says that young people need such a person as a reference point of identity within themselves and as a source of courage. The key to the Guarantor relationship is trust - he trusts the young person and is in turn trustworthy. If the relationship with the Guarantor remains constant, young people can face change and tension, and can grow through risk-taking. Snyder feels that when the Guarantor relationship is established it unites people across the rift between generations and may make possible some continued direction in civilization.

Perhaps the reason that teachers and administrators are not able to be the kind of sharing persons that Rogers and Wilson suggest or be the trustworthy guarantor of Snyder is that they are confused about what their role in school is to be. The situation is manifest in a sociological study of English boarding schools by Lambert, who has found that:

> over three quarters of the children in our boarding schools would not discuss a serious personal difficulty with anyone, and even fewer would take such a problem to an adult..... The boarding environment at once makes for ready and sympathetic adults to turn to but discourages their use because of

disciplinary roles, the supervisory functions and constant presence of these members of the staff.[15]

William Glasser[16] suggests a solution to just this problem. He feels that students and teachers can work together on problems, whether they be academic or social, in the classroom. However, before considering the specifics of Glasser's suggestions for educational reform, it is necessary to look at the basis of them. Glasser sees only two basic needs that motivate the behavior of students; the need for love and the need for self-worth. He also views these two as intertwined so closely that they can be related through the use of the term "identity", and that this can be seen as the single basic need students have. He states that there are only two places that a child can gain a successful identity, the home and the school, and he asserts that schools must help the child achieve identity by providing the two necessary pathways: a chance to give and receive love, and a chance to become educated and therefore worthwhile. Glasser suggests that if a person cannot develop identity through the two pathways of love and self-worth, he attempts to do so through two other pathways, delinquency and withdrawal.

In order to eliminate these latter two possibilities, he suggests that schools become places where failure does not exist. He sees first

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[15] Royston Lambert, The Hothouse Society. London: Weidenfeld and Nicolson, 1968. p. 256.

[16] William Glasser, M.D., Schools Without Failure. New York: Harper and Row, Publishers, 1969.

the elimination of grades, and second the institution of classroom meetings in which the teacher leads the whole class in a non-judgmental discussion about what is important and relevant to them. The meetings are of three types: the social-problem-solving meeting, concerned with students' social behavior in school; the open-ended meeting, concerned with intellectually important subjects; and the educational diagnostic meeting, concerned with how well the students understand the concepts of the curriculum.[17]

Specifically for the high school Glasser suggests a number of procedures for making involvement, relevance, and thinking a reality in the schools. He suggests: getting students involved with thinking about the relevant issues of our times; increasing the use of the homeroom for classroom meetings, which will help reduce the impersonality of secondary schools, and improve student-teacher relationships; having the more able students help those doing badly in subjects; involving townspeople and graduates in the school program; and making students responsible for their own tests.

Glasser feels that his suggestions would correct some of the present defects of secondary education and would help to return education to its original purpose: "to produce a thoughtful, creative, emotionally alive, unafraid man, a man willing to try to solve the problems he faces in his world."[18]

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[17] Glasser, op. cit., p. 122.

[18] ibid. p. 228.

Another contemporary scholar who is concerned with humaneness in the schools is Charles Silberman, who, in his study, Crisis in the Classroom, quotes from a wide variety of people to support his position that schools need to become more humane institutions, concerned with affect as well as cognition. "What tomorrow needs is not masses of intellectuals, but masses of educated men - men educated to feel and to act as well as to think."[19]

> What educators must realize, moreover, is that how they teach and how they act may be more important than what they teach. The way we do things, that is to say, shapes values more directly and more effectively than the way we talk about them. .....And children are taught a host of lessons about values, ethics, morality, character, and conduct every day of the week, less by the content of the curriculum than by the way schools are organized, the way teachers and parents behave, the way they talk to children and to each other, the kinds of behavior they approve or reward and the kinds they disapprove or punish. These lessons are far more powerful than the verbalizations that accompany them and that they frequently controvert.[20]

What Silberman is saying is that the schools are communicating some quite different values than they were intended to. He quotes Charles E. Brown as saying, "Not too many of us realize how bad American schools are from the point of view of humanity, respect, trust, or dignity."[21] Silberman goes on to assert that because adolescents are harder to "control" than younger children, secondary schools tend

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[19] Charles Silberman, Crisis in the Classroom. New York: Random House, 1970. p. 7.

[20] ibid. p. 9.

[21] ibid. p. 323.

to be even more authoritarian and repressive than elementary schools; the values they transmit are the values of docility, passivity, conformity, and lack of trust.[22]

Silberman then suggests directions in which he thinks schools must change to assist students in their search for identity. The changes he cites and recommends are those which humanize the institution: changes in school regulations to create a freer and more humane atmosphere outside the classroom; cutting the number of required classes in favor of electives and independent study, or for leisure time; and radical curriculum revision or indeed a questioning of the teaching-learning process. Silberman, as Rogers, sees the teacher not as a dispenser of knowledge, but as a facilitator of the learning process who shares not only his knowledge, but also his feelings - his person.

In summary then, what is being suggested is that schools have more of a function to perform than simply passing on the culture of the past to the next generation. Through a sharing - a community - they must seek to allow all the people in them to grow, to achieve their potential as human beings. The schools must be humane both in objectives and practices so that individual fulfillment becomes the end, not a means to some other end.

> Human beings have a functional purpose to perform; each of us does have to help keep society going, but it must be recognized that this does not confer significance on us as human beings; it confers significance on us as workers. It is in community, not

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[22] idem.

> society, that we reach our human fulfillment, for the community is the living network of personal relationships.[23]

Theoretical Referent of the Study

This section of the chapter deals with the theoretical basis for this assessment of community in independent secondary school environments. It provides the framework for investigating the concerns outlined in the preceding section.

Pace has classified research efforts into educational environments into four categories according to the question which each type of investigation has sought to answer.[24] The first approach to investigating environments seeks to answer the question, "What are the demographic features of the environment?" This approach assumes than an institution has a character and existence independent of the people in it and the answers can be obtained from an analysis of the publications of the institution. A second approach has been to ask, "Who lives in the environment?" This approach is the opposite of the first in that it assumes that the students comprise the institution. Data for analysis are obtained from the records of the students - I.Q., scores on standardized tests, where the students came from, etc. A third approach is illustrated by the question, "How do students behave in the environment?" Data are gathered by getting the students to

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[23] K.C. Barnes, "The Involved Man", National Children's Home Convocation Lecture, 1966.

[24] Pace, op. cit., p. 7.

reveal their behavior so that an institution may be characterized by a particular "set" of student behaviors - students at this school drink beer, study in the library and are not politically active.

A fourth approach to studying environments is the one that Pace and Sinclair have used. It seeks to answer the question, "What do students perceive to be the characteristics of the environment?" In this approach the environment is defined by consensus of the collective perceptions of the students who live in it. Although each of the approaches cited above has its own merits, Pace feels that the fourth one is most significant because:

> Regardless of individual behavior, or assorted physical facts of money or size, the environment, in a psychological sense, is what it is perceived to be by the people who live in it. Even if one grants the possibility of self-deception on a large scale, the perceived reality, whatever it is, influences one's behavior and response. Thus, realistically, what people think is true is true for them.[25]

This concept of using students perceptions to characterize the environment of a school is supported by the work of Murray.[26] In his treatment of the motivational process, Murray asserts a proposition that is directly related to a study of educational environments. He suggests that behavior is a result of the transactional relationship between the individual and his environment.

> Since at every moment, an organism is within an environment which largely determines its behavior,

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[25] Idem.

[26] Henry A. Murray, Explorations in Personality. New York: Oxford University Press, 1938.

> and since the environment changes - sometimes with radical abruptness - the conduct of an individual cannot be formulated without a characterization of each confronting situation, physical and social.[27]

It is obvious from this statement that personal motivations are very closely related to events taking place outside the individual and over which he has little control. However, his inner motivational state and the environmental forces both serve as determinants of his behavior. Murray stresses the importance of environmental elements contributing to behavior and states that the environmental context of behavior must be thoroughly understood and analyzed before an adequate account of individual behavior is possible.

The aspects of environment which are significant determinants of behavior are called "press" by Murray. By this he means that press is an attribute of an environmental object or person which helps or hinders the efforts of an individual to reach a given goal. "The press of an object is what it can do to the subject or for the subject - the power that it has to affect the well-being of the subject in one way or another."[28] Thus, by representing the environment in terms of press, it is possible to extract and classify significant portions of the environment to which an individual reacts and by which he is shaped.

Press is divided into two categories by Murray: Alpha press and Beta press. Alpha press is comprised of elements in the environment

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[27] ibid. p. 39.

[28] ibid. p. 121.

which can be observed by a trained observer, and Beta press is comprised of characteristics perceived by the persons living in the environment. The latter, then, is the subject's own interpretation of the environment.

In Pace's classification of environmental studies, the first three approaches can all be seen as applications of the Alpha press while the last one utilizes the Beta press.

This study also utilizes the Beta press in its assessment of the community aspect of the environment of selected independent secondary schools in that the collective perceptions of students in the selected institutions are used to describe the environment. The study is based on the work of Pace and utilizes his community scale, described in the first chapter, to assess the degree of community that students perceive as existing in their several schools.

CHAPTER III

RESEARCH PROCEDURES

This chapter describes the selection and adaptation of the CUES community scale and its reliability and validity. It describes the selection of the sample of independent secondary schools and the respondents in those schools. Further, it describes the administration of the community survey to gather student perceptions of their school environments, and finally it describes the procedures for analyzing the data and reporting the findings.

Selection and Adaptation of the Instrument

The instrument used to gather the data for this study was adapted from the community scale of the College and University Environment Scales, Second Edition, developed by Pace. The instrument was selected by the investigator since it has been proven to distinguish among environments and is well established in the measurement of environments in higher education. The purpose of the instrument, as stated in the technical manual, is in close agreement with the purpose of the present study.

> The CUES instrument is, therefore, a device for obtaining a description of the college from the students themselves, who presumably know what the environment is like because they live in it and are part of it. What students are aware of, and agree with some unanimity of impression to be generally true, defines the prevailing campus atmosphere.[1]

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[1] Pace, op. cit., p. 9.

Although the community scale of CUES is closely related to the intentions of the present study, some adaptation was necessary in diction to more accurately reflect the terminology current in secondary schools. Thus, such terms as "professor" and "college" were replaced with "teacher" and "school". After careful consideration of each item in the scale, all were retained since the nature of independent secondary school environments is not greatly disparate from those in colleges, and the concepts and terms, with the exception of those which were changed, are understood by students at the secondary level.

Description of the instrument. The instrument used for the community survey consists of the thirty items of the CUES community scale. The items are statements about conditions and practices that occur in secondary schools. Twenty of the items were retained by Pace from the thirty item scale of the first edition of CUES after factor analysis showed them to have a correlation with the community scale of .40 or higher.[2] The remaining ten items are new "experimental" items added by Pace to the second edition. While they are not backed by adequate normative information, the investigator included them for two reasons. First, for this study the schools are not compared with a norm group but only with each other, and since all schools were given the same instrument, the results were anticipated to be valid for this study. Second, the items appear to be congruent with the first twenty items and Pace's experience with environmental

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[2] ibid. p. 36.

studies should enable him to create accurate and discriminatory items.

No alternate forms of the instrument were created so all respondents in the sample answered the same thirty items. A copy of the instrument is included in Appendix A.

Selection of the Sample

The schools. Eleven independent secondary schools were selected for this investigation of student perceptions of the community aspect of educational environments. The intention was to select a diverse sample of schools so that demographic conditions and other possible influences on community could be inferred. The characteristics of the schools in the sample are shown in Table 1.

The eleven schools selected for the sample were chosen from among a larger number available to the investigator for their convenience to the investigation, their willingness to co-operate, and their interest in the results of the study. Independent secondary day schools were not readily available to the investigator, so all the schools in the sample are residential institutions. Since most residential institutions are single sex schools, all the schools in this study are also for one sex of student only, although several of them have varying degrees of co-ordination with schools for students of the opposite sex. Within the limitations noted above, the sample schools represent a diversity of demographic characteristics and were

TABLE 1

Demographic Characteristics of the Selected Schools

School Code	Sex of Students	Boarding or Day	Amount of Co-ordination	Amount of Structure	Denom. Affil.	Number of Students
01	Boys	Boarding	Full	Medium		220
02	Boys	Boarding	Full	Medium		626
03	Boys	Boarding	None	Low		520
05	Boys	Boarding	None	High	Episc.	198
06	Boys	Boarding	None	High		376
07	Boys	Boarding	Some	High	Episc.	170
11	Girls	Boarding	Full	Medium		595
12	Girls	Both	None	Medium		150
13	Girls	Both	Some	Low	R.C.	330
14	Girls	Boarding	None	Low		218
15	Girls	Boarding	Some	High	Episc.	70

judged by the investigator to be typical of independent boarding schools. Some of the schools had a large proportion of day students and they varied in size from 70 to 600 students. The schools were located in four states. Data were collected only in this sample of eleven, and the conclusions reached should be generalized only to similar schools. In order that the participating schools may remain anonymous, they are referred to in the pages that follow by school code numbers.

The respondents. The respondents among the student population of each school were chosen by random assignment to the sample group in each grade. Thirty students were selected in each grade, nine through twelve, except where the total number of students in a grade was less than thirty. In those cases the total universe of the grade was surveyed. The situation frequently encountered was that the ninth grade in some schools was very small so the sample of thirty students represents a larger proportion of the population than does the sample of thirty in a twelfth grade. However, since school scores are computed from the responses of the total student sample in a school and it was necessary to have a sample cell size of thirty per class in order to assess varying class perceptions, the unequal proportion of students was necessary. Thus, it is the students who judge what is or is not characteristic of the community aspect of their school environment. The total faculty of each school was also to have been surveyed in order to make comparisons of the perceptions of faculty and students of the same environment. Due to the self-

determination allowed faculty members in the schools, some chose not to attend the administration of the survey or did not complete it when it was received, so that the faculty figures represent less than total participation in most cases. However, a large enough percentage was obtained in all cases so that comparisons could be made.

A listing of each school by size, the number of students reporting in each grade in the school and the number of faculty reporting in each school is presented in Table 2.

In using random assignment to select the student respondents it was judged unlikely that the personal characteristics of an individual student would have any important influence on the measure of the community environment. Although individuals within a school may differ in what they perceive to be characteristic of that environment, the atmosphere in general can be described by a composite of those perceptions and expressed as a raw score on each survey item. So, the data analyzed for the study were the raw scores of student responses to statements about the community of their school. The perceptions of a single respondent represented only one of many scores contributing to the total score for a particular grade and school. It was the combined scores of all student respondents that determined the school score. The random assignment procedures should have equalized all variables affecting the students, such as differing personalities, scholastic aptitude, and achievement.

TABLE 2

Number and Percent of Faculty and Students Responding

School Code	01	02	03	05	06	07	11	12	13*	14	15
# of Faculty	26	78	65	20	51	23	76	23	31	27	12
# Responding	16	36	37	18	25	23	16	23	18	27	12
Percent	62%	46%	55%	90%	49%	100%	21%	100%	58%	100%	100%
# of Students	220	626	520	198	376	170	595	150	217	218	70
# Responding	95	128	105	107	108	109	112	124	136	117	65
Percent	43%	20%	20%	54%	29%	64%	19%	83%	63%	54%	93%

*School 13 has a total enrollment of 330, and a total faculty of 42. These figures are for grades 9-12 only.

Administration of the Instrument

Data were collected from approximately thirty students in each grade in each school. In ten of the eleven schools the survey was administered to all the student respondents in a group. Due to the pressures of time in the other school the survey was distributed through the student mail and returned to a central location. This latter method was also used for faculty in four schools, but in the others the faculty were surveyed as a group. Full instructions were included in each survey booklet so that respondents who were not in a group administration received the same instructions as those who were. In the school where mail distribution was used the investigator addressed the students as a group preceding the selection of the respondents and appealed for co-operation. In all schools except two the survey was administered by the investigator. In the other two schools the survey administrator was a close friend of the investigator and details were worked out carefully by mail and telephone to insure quality control in the selection of the respondents and administration procedures. Upon receipt of the returned answer sheets the investigator checked them for any obvious errors and found none. No irregularities were reported by the administrator.

The procedures for administering the survey were as follows:

1. The administrator made a brief explanation about the purpose of the survey in order to allay any anxiety on the part of the respondents and to promote co-operation and honesty.

2. Survey booklets, answer sheets and pencils were then passed out to all respondents and the administrator read the instructions aloud, asking the respondents to read along with him, and allowing time for questions.
3. The respondents then worked at their own pace to complete the survey as there was no set time for completing the items. Thus, booklets and answer sheets were collected as individuals finished, and they were then allowed to leave.

Scoring of the instrument. The instrument was scored in two ways: a total school score was derived from the perceptions of all students in the sample; and scores were derived for the four grades and faculty as separate groups. The technique used for obtaining the scores was the one suggested by Pace in the technical manual and outlined in Chapter I. This method, known as the "66 plus/33 minus" method, consisted of adding the number of items answered by 66% or more of the respondents in the keyed direction, subtracting the number of items answered by 33% or less of the respondents in the keyed direction and adding a constant of 30 points to the difference in order to eliminate negative scores. This scoring method takes into account a two to one level of consensus among the respondents in both directions from the key. Thus, a high score is obtained by having a large number of items answered in the keyed direction by two thirds of the respondents in the group, accompanied by few items answered in the keyed direction by only one third or less, and conversely.

Reliability and Validity of the Instrument

Reliability. As was stated in the introduction to the study, the scoring system for this measurement of environment seeks a high degree of consensus rather than variance, but by most methods reliability is a function of a wide distribution of scores. Thus it is not possible to estimate reliability by the typical correlational and variance methods for a single institution. Therefore, the approach to determining reliability was rather to use Hoyt's Analysis of Variance method to determine the internal consistency of the community scale. In using Hoyt's reliability the total scores of all respondents in the sample were considered as the test scores. Thus the Hoyt's reliability for this instrument in these schools was .89, which demonstrates a high degree of internal consistency. This compares with Pace's reliability estimate for the community scale of .92 by Cronbach's alpha,[3] and with Sinclair's estimate of .81 using Kuder-Richardson 21.[4]

Validity. Because the instrument used in this study is the same community scale used by Pace (with minor adaptations as noted), the investigator relied on the validity of the scale as determined by Pace. Through rigorous analysis Pace has found that the content of the scale is representative of the environment being considered.[5] Factor analysis has shown that all items of the community scale load on

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[3] ibid. p. 44.

[4] Sinclair, op. cit., p. 54.

[5] Pace, op. cit., p. 36f.

that scale, most of them with item scale correlations of .50 or higher. This suggests that the community scale has a high degree of content validity. In preparation for the present study, the investigator studied the relationship of the items on the scale with the community aspect of school environments and judged that the instrument had adequate content validity for the environments to be measured by this study.

Because the study seeks to assess what the community aspect of environment is like in independent secondary schools and because few measures of those same environments exist it was difficult to obtain additional data about the institutions in the sample which could be used to provide construct or concurrent validation. Therefore, again this study relied upon the concurrent validity determined by Pace for CUES. The validity data consist of correlations between CUES and various characteristics of students and institutions obtained through other measurements. The correlations support the conclusion that campus atmosphere as measured by CUES is a concept buttressed by a good deal of concurrent validity.[6]

Collecting and Analyzing the Data

Collecting the data. The administration of the community survey took place in the eleven schools between March 1 and April 15. Answer sheets were checked for data placement immediately upon return from a school. When the sampling was completed the answer sheets were

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[6] Ibid. p. 54.

read by optical scanning equipment and the data transferred to IBM punch cards. In addition to the survey, demographic data about each school were collected from the school head on a face sheet and copies of the school rules and regulations were obtained. A copy of the face sheet is included in Appendix A.

Analyzing the data. The data obtained from the respondents were subjected to electronic data processing for analysis. First, a frequency count was done on all items according to the length of time a student had been in the school. Correlations were then run comparing the responses of new students with those who had been in the institutions more than a year. The second analysis run on the data was a Statistical Package for the Social Sciences crosstabulation of item by grade (or faculty) by school.[7] The results of the correlation program were related to the major questions and expectations stated in Chapter I according to the following analysis:

1. Inspection to determine the differences and similarities in community among independent secondary school environments.
2. Inspection of the items contributing to a school score to determine the nature of the community in each school.
3. Inspection and comparison of the items across schools and within them to determine any existing

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[7] Michael Patrick Hagerty of the School of Education at the University of Massachusetts developed an adaptation of the SPSS program for the analysis.

patterns in community.

4. Inspection and interpretation of the school and sub-group scores against demographic data to confirm or reject the expected results.

The scores of the schools on the community aspect of their environment were reported for each sub-group and school in the sample. Differences and similarities among the schools were described and patterns among the schools and within individual schools were reported. The following chapter reports the detailed findings of the study.

CHAPTER IV

FINDINGS AND INTERPRETATIONS

This chapter presents, analyzes and interprets the results of this investigation into the community press of the educational environments of the selected independent secondary schools. Scoring procedures yielded community scores for each school and for each sub-group (grades 9, 10, 11, 12 and faculty) within each school. It will be recalled from the first chapter that the study, analysis and interpretations were guided by the following questions:

1. What are the similarities in community among the selected independent secondary schools?
2. What are the differences in community among the selected independent secondary schools?
3. What patterns in community exist among the selected independent secondary schools?
4. What differing perceptions of community are held by the sub-groups within the selected independent secondary schools?

The answers to these questions were derived through examination of the scores for the schools and the sub-groups. These were treated both as total scores on the community scale and as scores for individual survey items. When necessary, the data were treated with various statistical procedures to determine their significance at the .05 level of confidence.

The purpose of this study was exploratory and therefore the findings are tentative. However, they are sufficiently complete to provide information about a particular type of educational environment

into which little research has heretofore been done.

Findings of Similarities and Differences in Community

Since similarities and differences are the obverse of each other, the findings were regarded together. The results of the analysis of differences revealed similarities at the same time, so both will be considered and presented in this section. Similarities and differences were determined in two ways: through total school score; and by inspection of individual survey items. The results will therefore be reported in two sub-sections dealing with findings from the total scale score and findings from the item scores.

Similarities and differences determined through total scale scores. School scores were derived for each school through the 66+/33- scoring method outlined in the third chapter. The scores were determined from the percentage of students in each school responding to an item. The percentage of students was computed by the cross-tabulations program.[1] The school scores obtained through this method are reported in Figure 1.

It will be recalled that the 66+/33- scoring method included the addition of a constant of 30 to all scores to eliminate the possibility of negative numbers. The possible range in scores was thus 60 points from 0 to 60. With one exception, all of the scores fell within the 30 to 40 range, indicating a fairly neutral position on community.

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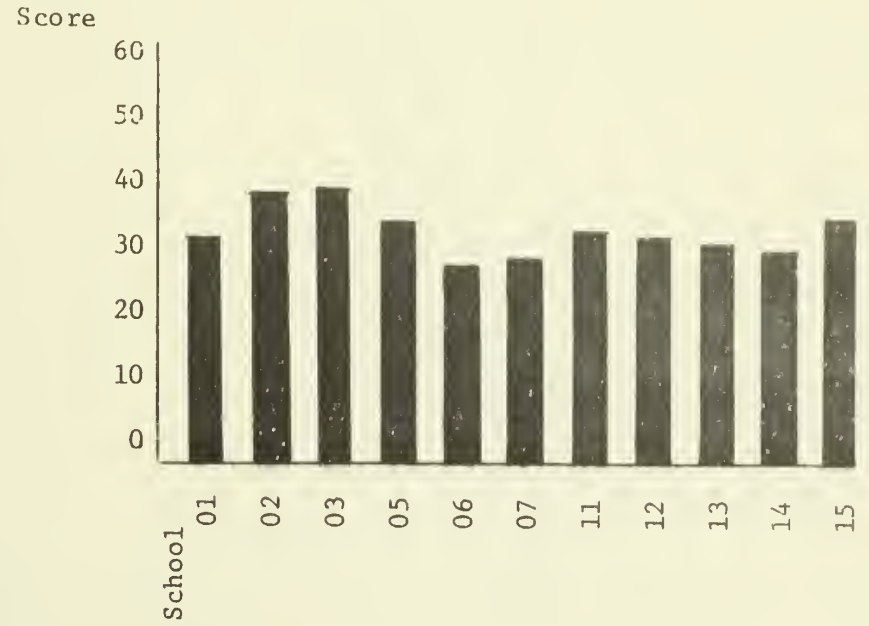
[1] Norman Nie, Statistical Package for the Social Sciences. New York: McGraw-Hill Book Company, 1970.

FIGURE 1

School Scores by 66+/33- Method



Score: 33 39 40 35 29 30 34 33 32 31 36

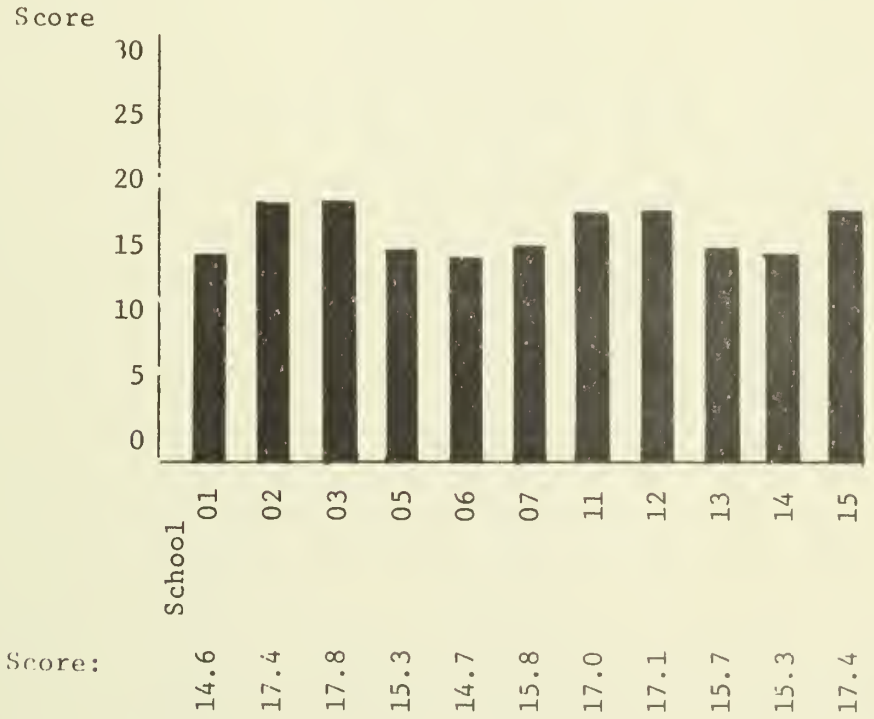
Range 11 Mean 33.82 SD 3.49

The investigator wished to determine if the schools were significantly different from each other in community. In order to ascertain the differences or similarities it was necessary to run a one way analysis of variance. However, since analysis of variance requires within variance and the scoring procedure used above does not give it, another scoring method was imperative. In order to obtain within variance, each student's response was scored by summing the

items to which he responded in the keyed direction. Through this procedure each individual was given a score and a "school score" was determined by taking the mean of all the student scores in that school. The scores for the eleven schools obtained by this method are reported in Figure 2.

FIGURE 2

Student Mean Scores for Schools



Range 3.2 Mean 16.19 SD 1.17

The difference between the scores produced by the two methods is due to the fact that the 66+/33- method subtracts the number of items answered

by less than 33% in the keyed direction and adds a constant of 30 to the score. It should be noted that the two methods do not give the same results but that there is a relation between the two. In order to determine the degree to which the two scores were related, both the raw scores and the standard scores for the two methods were correlated, yielding a correlation of .75. The standard scores for both methods are reported in Table 3.

TABLE 3

Standard Scores for Both Scoring Methods

School Code	Z - School Score	Z - Student Mean
01	-.23	-1.36
02	1.48	1.03
03	1.77	1.38
05	.34	-.76
06	-1.38	-1.27
07	-1.09	-.33
11	.05	.69
12	-.23	.78
13	-.52	-.42
14	-.81	-.76
15	.62	1.03

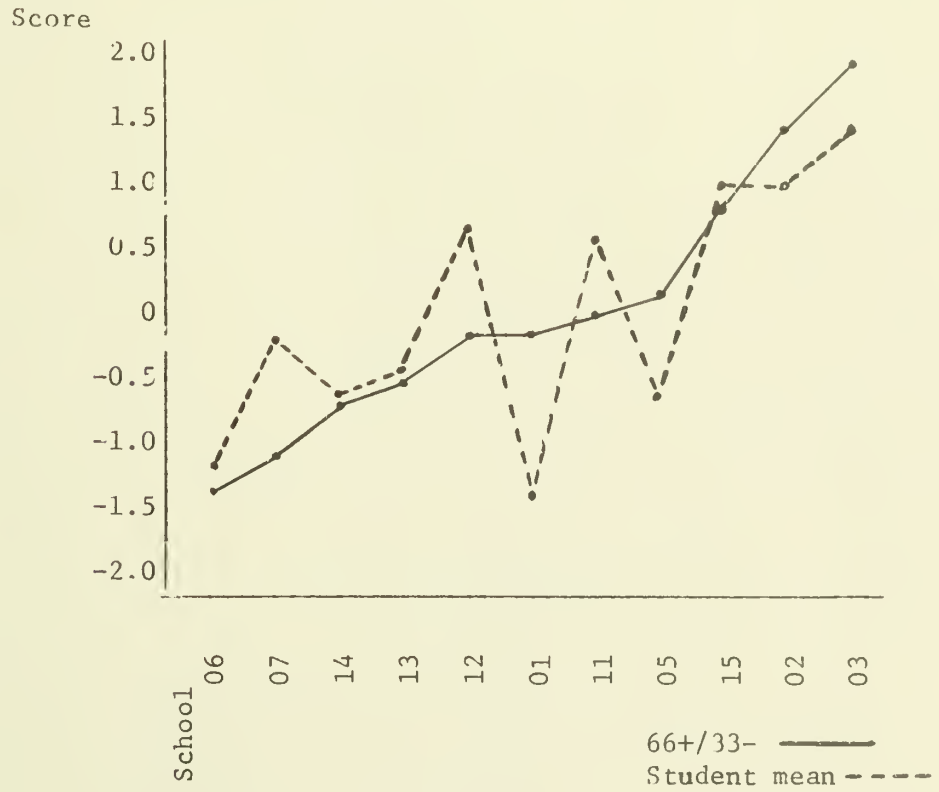
Correlation = .75

It is obvious that the two methods of scoring yield different results due to the procedures involved. A more descriptive way of portraying the relationship between the two scoring methods is presented in a graph of the Z scores in Figure 3. The standard scores

of the school score (66+/33-) method are shown as the solid line and the standard scores of the student mean are shown in relation to them.

FIGURE 3

Graph of Z Scores



A one way analysis of variance was run using these student mean scores. The ANOVA program used was the BMD-01V, which computes an analysis of variance table for one variable or a classification with

unequal group size.[2] After a significant F was obtained from the ANOVA for the eleven schools, the standard scores were compared by the Scheffé or S-method,[3] which is most appropriate when the numbers in the groups being compared are unequal.[4] The output of the one way analysis of variance is given in Figure 4. The value for F which was determined among the schools was 8.27. At the .05 level of confidence F is significant when $F > 1.84$. Through the Scheffé method, significant differences were determined between school 01 and schools 02 and 03; and between school 06 and schools 02 and 03. In the Z scores computed on student mean scores (the scoring method used in the ANOVA) these four schools were at the high and low ends of the distribution. The Scheffé method revealed that these four schools formed two groups of two and that they were different from each other but similar to the schools in between. The similarities and differences determined through the S-method may be represented in the following way:

<u>01 06 14 05 13 07 11 12 15</u> 02 03

Those schools which are connected by the underscoring lines are similar and those which are unconnected are different.

The higher a school scores on community the closer it is to the ideal definition given in the first chapter. Schools 02 and 03

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[2] W. J. Dixon, Editor, BMD Biomedical Computer Programs. Berkeley: University of California Press, 1968.

[3] The program is listed in Appendix C.

[4] Gene V. Glass and Julian C. Stanley, Statistical Methods in Education and Psychology. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1970. pp. 388-393.

approach the ideal and schools 01 and 06 are furthest away from it.

Similarities and differences determined through individual survey items. Another way of looking at the similarities and differences among the schools in the sample was through inspection of the frequency distribution of the item scores by school. These are presented in Table 4 as they would be in determining a school score through the 66+/33- method. A 1 in the table represents a percentage response of 66.7 or higher and a score of -1 represents a percentage response of 33.3 or lower. A 0 score represents anything in between the two and thus not contributing to the school score.

Table 4 is a systematic representation of the percentage distribution of item scores as they are used in calculating school scores. A fuller presentation of the frequency distributions resulting from the survey also provided useful data in determining differences and similarities. The number of schools with students scoring in a given percentage range for each item is shown in Table 5.

The schools are similar in their preceptions on eight items: 1, 5, 6, 9, 16, 18, 19, and 26. Generally the selected schools could be characterized as having courses in which it is easy to take notes and where faculty members call students by their first names. The students borrow and share each others' possessions and share their problems with each other. They do not exert pressure on one another to live up to the expected codes of conduct, but they quickly learn what is done and what is not done. They get together easily for informal social activities. None of the schools offers a course or

FIGURE 4

One Way Analysis of Variance

Treatment Group	01	02	03	05	06	07	11	12	13	14	15
Sample Size	95	128	105	117	108	109	112	124	136	117	64
Mean	14.65	17.41	17.78	15.27	14.70	15.83	17.03	17.07	15.71	15.32	17.37
Standard Deviation	4.02	4.00	3.31	4.41	4.07	4.43	4.01	4.43	4.43	4.09	4.09
Mean/Standard Deviation	3.64	4.35	5.37	3.44	3.61	3.57	4.25	3.85	3.61	3.75	4.25

Analysis of Variance

	Sum of Squares	DF	Mean Square	F Ratio
Between Groups	1415.6369	10	141.5637	8.2691
Within Groups	20612.0668	1204	17.1197	

TABLE 4

Item Scores by School

Item	School: 01	02	03	05	06	07	11	12	13	14	15
1	1	1	1	1	1	1	1	1	1	1	1
2	0	0	1	1	0	0	0	0	0	0	1
3	0	0	0	0	-1	0	0	0	0	-1	1
4	0	0	1	1	0	0	1	-1	-1	0	0
5	0	0	0	0	0	0	0	0	1	0	0
6	1	1	1	1	1	1	1	1	1	1	1
7	1	0	1	1	1	0	0	0	0	0	0
8	-1	0	-1	0	-1	-1	0	-1	-1	0	0
9	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
10	0	0	0	0	0	1	1	1	1	1	1
11	1	1	1	0	0	0	1	0	-1	0	0
12	-1	0	0	0	-1	1	-1	-1	-1	0	1
13	0	1	0	0	0	0	0	0	0	-1	0
14	0	-1	0	-1	0	0	-1	0	0	0	0
15	0	1	1	0	0	0	0	1	0	0	1
16	1	1	1	1	1	1	1	1	0	1	1
17	1	1	1	1	1	1	0	1	0	1	0
18	1	1	1	1	1	0	1	1	1	1	1
19	1	1	1	1	1	1	1	1	1	1	1
20	-1	0	0	0	0	0	-1	-1	-1	-1	-1
21	1	1	1	0	0	0	1	1	1	0	0
22	0	0	-1	0	-1	0	0	0	-1	-1	-1
23	0	0	0	0	0	0	0	0	0	-1	0
24	1	0	1	0	0	-1	1	0	1	1	0
25	-1	0	0	-1	0	-1	0	0	0	0	-1
26	-1	0	-1	-1	-1	-1	-1	-1	-1	-1	-1
27	1	1	1	1	1	1	1	1	1	0	0
28	0	0	0	1	-1	-1	0	0	1	1	1
29	-1	0	0	-1	-1	-1	-1	0	0	-1	0
30	-1	0	0	-1	-1	-1	-1	-1	0	0	-1
School Score	33	39	40	35	29	30	34	33	32	31	36

TABLE 5

Frequency Distributions by Item

Item	Key	Number of Schools in the Keyed Direction Per Cent 0-11%	12-22%	23-33%	34-44%	45-55%	56-66%	67-77%	78-88%	89-100%
1	T							3	7	1
2	T				3	3	3	3		
3	T			2	3	2	3	1		
4	T		1	1	3	1	2		3	
5	T				2	3	5	1		
6	T							1	4	6
7	T				2	1	4	4		
8	T		3	3	3	2				
9	T	4	4	3						
10	F				1	1	3	3	3	
11	T			1	2	2	2	3	1	
12	T	1	1	3	3	1				2
13	T			1	3	5	1	1		
14	T			3	5	2	1			
15	F					3	4	4		
16	T				1			2	7	1
17	T					1	2	3	5	
18	T						1	4	5	1
19	F							1	3	7
20	T		1	5	4		1			
21	T					2	3	2	3	1
22	T		2	3	4	1	1			
23	T			1	2	5	3			
24	T			1		3	2	2	3	
25	T			4	2	2	3			
26	T	5	2	3	1					
27	T						1	4	5	1
28	T			2	1	3	1	4		
29	T	1	4	1	3	2				
30	T	1	1	5	2	2				

seminar in marriage and family problems. Students are not able to agree in any of the schools whether the teachers go out of their way to help students.

Discussion of similarities and differences. The CUES community scale does differentiate among schools on community, but the schools in this sample were shown to be more similar than different when analyzed according to student mean scores. Only the two lowest and two highest scoring schools in the sample were significantly different from each other. Differences among the other schools were not significant and the high and low scoring schools were not statistically different from schools scoring in the middle range. Using item responses, the schools were similar in their responses on eight items. Using either of the scoring methods the schools were all relatively low when measured against the total possible score.

Findings of Patterns in Community

The purpose guiding the analysis of patterns was to seek out groups of survey items which characterized schools when grouped by their demographic characteristics or their score on the community scale. Schools were grouped according to their demographic characteristics and mean scores for groups were compared; school scores using the 66+/33- method were plotted, graphed and compared; and rank ordering according to characteristics was attempted. This section will present first the patterns derived from school score comparisons and then patterns of items characterizing groups of schools.

School score patterns in community. The schools scoring highest on the community scale were the two largest boys' schools. Of the schools above the mean, three were boys' schools and two were girls' schools. There were three boys' schools and three girls' schools below the mean. Figure 5 gives a graphic representation of the school scores by school code. It should be noted here that the codes denote the sex of students in the school, schools 01 to 07 being boys' schools and schools 11 to 15 being schools for girls.

FIGURE 5

Graph of School Scores by Code

Boys' schools had the greater variation, with both the lowest and highest scoring schools. The girls' schools tended to cluster more

closely about the mean.

Schools were also placed in order from the largest to the smallest for comparison. There appeared to be a correlation of higher scores to larger schools but a rank order correlation proved to be positive but non-significant. Figure 6 presents a graph of the school scores arranged by size.

FIGURE 6

Graph of School Scores by Size

The data presented in Figure 5 were also used to reject any pattern characterizing boys' schools or girls' schools. Other demographic features of the sampled institutions were similarly treated and in no case was there a clear pattern or correlation of one type of school

having a definitely higher or lower score than another.

Figure 7 presents a similar graph with the schools ordered from the most highly structured to the least structured school as determined from the stated rules and regulations of the schools. There appeared to be a tendency toward a correlation, but no definite pattern was established.

FIGURE 7

Graph of School Scores by Structure

There was a general pattern in the relationship between structure and community, but there were too many exceptions to establish a definite connection. It should also be noted that the larger schools tended to be the less structured ones so it was difficult to determine

which of the demographic variables might have influenced community.

Similar comparisons were made according to the amount of co-ordinate education an individual school participated in and whether the school was Church-related or secular. Neither of these comparisons produced a conclusive pattern.

Contextual patterns in community. Another means of testing for patterns in the selected schools was to inspect the item scores contributing to the high scoring institutions and the items characterizing the low scoring schools. Item answer patterns were also inspected for the demographic variables to determine possible groups of items characterizing one particular type of institution.

Three criteria were established to determine item answer patterns between high and low scoring schools.

1. Two thirds of the students in the group of schools had to respond to the items in the same manner.

2. Among that group there could be no case of consensus in the opposite direction on an item.

3. An item could not be common to both the highest and the lowest scoring schools.

Using the school scores, the two highest schools were 02 and 03 and the two lowest schools were 06 and 07. Three items met the criteria in the highest scoring schools, but there was not set of items which met the criteria for the lowest scoring schools. In other words the highest scoring schools can be said to be characterized by the following set of items which are absent from the low scoring schools. The lowest scoring schools, however, do not share a common set of items.

11. (T) This school has a reputation for being very friendly.

15. (F) Most of the faculty are not interested in students' personal problems.

21. (T) The campus design, architecture and landscaping suggest a friendly atmosphere.

Inspection of the item scores revealed only two items which might be said to characterize schools according to sex. Five of the seven boys' schools and none of the girls' schools answered item 7.

7. (T) When students run a project or put on a show everybody knows about it.

Similarly, item 10 was answered as being present in all of the girls' schools and only one of the boys' schools.

10. (F) Graduation is a pretty matter of fact, unemotional event.

Inspection revealed no item or set of items which characterized schools by the other demographic variables.

Discussion of patterns in community. There is one general pattern revealed through inspection and comparison of scores with demographic features. Larger, less structured schools tend to score more highly on community than smaller, more structured schools. Because of the limited size of the sample, however, this cannot be regarded as a definite finding.

Inspection of individual item scores revealed a pattern in the high scoring schools. Those schools were perceived as having a reputation for friendliness backed up by a faculty interested in students' problems and a campus that suggests friendliness. Boys' schools can be expected to have more student knowledge of campus activities, and girls' schools to have emotional commencements. There is a general pattern of items answered by all the schools and reported

in the section of this chapter on similarities and differences.

Findings of Sub-Group Perceptions of Community

The sub-groups considered in the present study were the four high school grades and the faculty, which were compared both across schools and within each school. The two scoring procedures used for the analysis of variance among schools were again used to compare the sub-groups. As with the comparison of schools it was necessary to use the student mean scores rather than the school scores to obtain within variance in order to compute analysis of variance among the five sub-groups in the total sample and among the five sub-groups in each school. The school scores for each sub-group as obtained by the 66+/33- method are reported in Table 6. The scores obtained by the use of the student and faculty mean scores are reported in Table 7.

A one way analysis of variance was computed, obtaining an F value of 16.9 for the five sub-groups across the eleven schools. The value of F needed for a significant difference at the .05 level of confidence 2.38. The results of the one way ANOVA are presented in Figure 8.

Upon the determination of a significan F for differences among all groups, the Scheffé or S-method was used to determine the significance of the difference between any two of the groups. In the comparison of all students as a group with the faculty, a critical value of $F > 2.53$ was necessary for significance at the .05 level and a critical value of F of 7.90 was obtained. In comparing any pair of

TABLE 6

Sub-Group "School Scores" for Community

Sub-Group / School Code:	01	02	03	05	06	07	11	12	13	14	15	Mean
Ninth Grade	33	37	44	40	35	27	36	31	35	38	41	36.0
Tenth Grade	28	41	40	29	32	37	38	34	31	29	41	34.5
Eleventh Grade	29	36	35	28	27	31	33	39	34	24	35	31.9
Twelfth Grade	33	40	38	32	22	31	32	38	32	32	32	32.0
Faculty	36	43	49	41	36	32	41	36	42	36	41	36.0

TABLE 7

Sub-Group Mean Scores on Community

Sub-Group / School Code:	01	02	03	05	06	07	11	12	13	14	15	Mean
Ninth Grade	15.8	16.7	19.0	16.8	15.8	13.9	17.6	15.2	16.6	17.5	19.0	16.7
Tenth Grade	14.3	17.7	17.9	14.7	14.8	16.8	17.5	16.9	15.4	15.5	18.2	16.3
Eleventh Grade	13.4	17.3	16.7	14.1	14.2	16.1	17.2	17.5	15.6	13.9	16.9	15.6
Twelfth Grade	15.8	18.0	17.8	15.4	13.6	15.7	16.1	17.5	15.3	15.9	16.1	16.2
Faculty	17.4	19.0	21.8	17.9	17.0	15.6	20.2	18.0	19.9	16.9	16.2	18.5
F Ratio	3.27	1.66	10.80	3.12	2.21	1.15	2.99	0.99	4.24	3.29	0.79	
Critical value of F at .05 F	2.46	2.43	2.44	2.44	2.44	2.44	2.44	2.44	2.44	2.44	2.50	

FIGURE 8

One Way Analysis of Variance

Treatment Group	Ninth	Tenth	Eleventh	Twelfth	Faculty
Sample Size	245	307	350	314	251
Mean	16.70	16.30	15.62	16.24	18.49
Standard Deviation	4.66	4.12	4.13	4.14	4.92
Mean/Standard Deviation	3.58	3.95	3.78	3.92	3.75

Analysis of Variance

	Sum of Squares	DF	Mean Square	F Ratio
Between Groups	1295.2862	4	323.8216	16.9622
Within Groups	27910.7151	1462	19.0908	
Total	29206.0014	1466		

sub-groups among the five a critical value of F> 3.13 was necessary for a significant difference. No student sub-group was found to be significantly different from any other but every student sub-group differed from the faculty. The results of the S-method comparisons are reported in Table 8.

TABLE 8

S-method Comparison of Four Grades with Faculty

Comparison	Critical Value of F
Ninth Grade with Faculty	4.58
Tenth Grade with Faculty	5.91
Eleventh Grade with Faculty	8.04
Twelfth Grade with Faculty	6.23

Necessary Critical Value of F at .05, F> 3.13

In other words, the four grades are similar to each other in their perceptions but each is different from the faculty. This can be represented in the following manner:

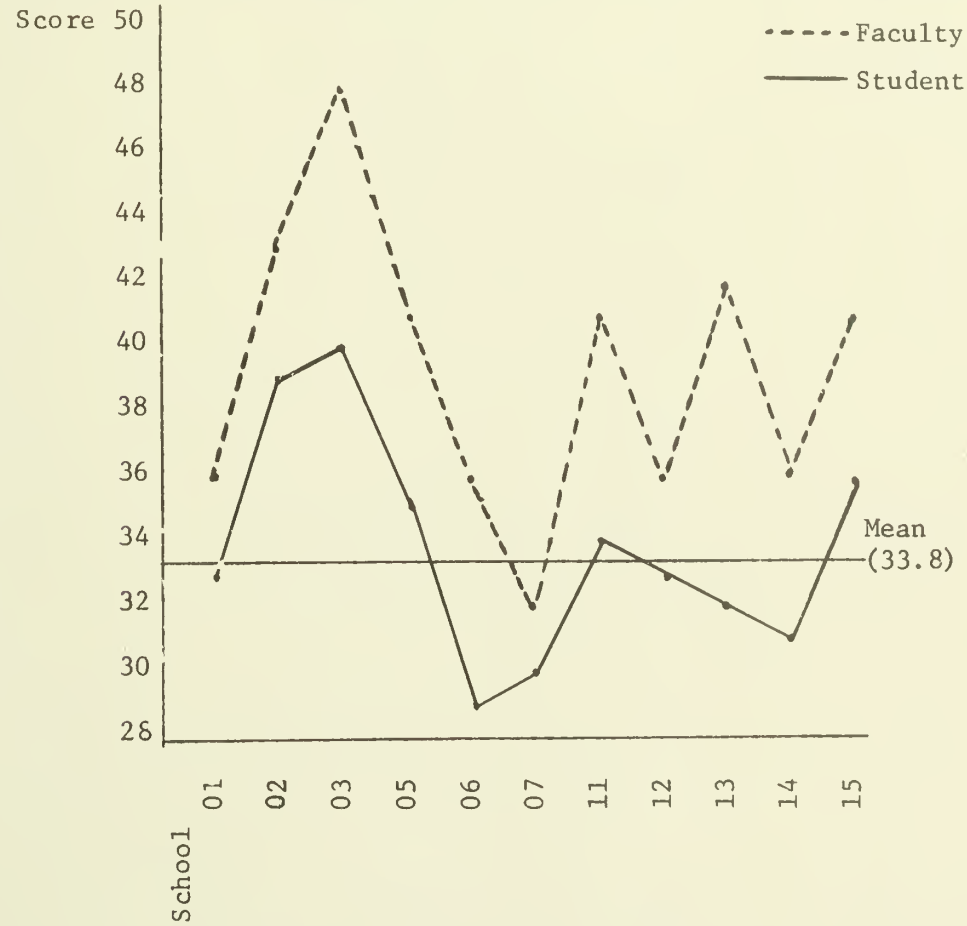
9 10 11 12 F

Another means of contrasting faculty and student perceptions of the same environment was to graph the two scores for each school on the same scale using the 66+/33- school score. This comparison is shown

in Figure 9.

FIGURE 9

Graph Comparing Faculty and Student Scores



A one way analysis of variance was also computed for the five sub-groups within each school and the S-method of comparisons was made on all pairs in the schools for which a significant F was obtained. (The reader may refer to Figure 7 for this data.) In no case was there a

significant difference between the perceptions of the four grades. In two schools the ninth grade did not attain the critical value of F when compared to the faculty but in all other cases the perceptions of each grade were seen as significantly different from the perceptions of the faculty.

An inspection of the percentage of sub-group respondents answering each item in each school revealed some patterns among the sub-groups. The full data of these responses is contained in Appendix B. Here, again, the differences were usually between faculty and student perceptions. There was a set of three items which the faculty answered as being present in the schools, but which the students did not see as characteristic. The items are all related to the faculty role in the school.

5. (T) The teachers go out of their way to help you.

15. (F) Most of the faculty are not interested in students' personal problems.

23. (T) Counseling and guidance services are really personal, patient, and helpful.

Conversely, item 17 was answered as "true" by most students and as "false" by most faculty. This item has to do with student relationships.

17. (T) It's easy to get a group together for card games, singing, going to the movies, etc.

The percentage of responses for students and faculty to these four items is given in Table 9.

Other faculty-student differences appeared on specific items in individual schools. For item 26 the faculty in schools 06 and 13 answered that there were courses or seminars dealing with problems of

TABLE 9

Student and Faculty Responses to Four Items

School Code	Faculty or Student	Items 5	15	17	23
01	F	57.7	93.8	62.5	68.8
	S	40.0	61.0	67.3	34.7
02	F	86.1	91.7	69.4	88.9
	S	64.8	75.0	82.8	63.3
03	F	86.5	94.6	86.5	75.7
	S	50.5	61.0	67.3	34.7
05	F	72.2	77.8	55.6	66.7
	S	51.4	55.1	82.2	61.7
06	F	88.0	72.0	56.0	52.0
	S	51.8	55.5	68.5	47.2
07	F	73.9	73.9	56.5	47.8
	S	57.8	62.3	80.7	47.7
11	F	87.5	100.0	62.5	87.5
	S	62.5	60.7	64.3	53.6
12	F	91.3	28.3	56.5	52.2
	S	64.5	77.4	71.8	39.5
13	F	100.0	94.4	55.6	100.0
	S	69.1	63.2	46.3	52.9
14	F	70.4	66.7	48.1	37.0
	S	34.2	47.0	79.5	25.6
15	F	83.3	75.0	66.7	58.3
	S	63.1	67.7	60.0	47.7

marriage and the family and the students answered negatively. Conversely, in school 01 the faculty answered item 24 indicating that there were no courses involving students in activities with groups or agencies in the local community, while students felt that there were.

Other differing perceptions occurred between faculty and students in eight schools on item 2 where the ninth grade and the faculty thought that the school helps everyone get acquainted, but none of the other classes did. One exception to this was school 15 where all the students scored high and the faculty low. Another item difference in eight schools found the students perceiving that the history and traditions of the school were strongly emphasized but the faculty not scoring in that way. This raises the question of who in the school does the acquainting and the emphasizing of traditions.

Discussion of sub-group perceptions of community. There were differences in the perceptions of sub-groups of the community aspect of environment in the selected schools. However, with the exception of the faculty, the differences were not statistically significant. The grades did not group together in their perceptions. The grade which had the lowest perception of community was the eleventh, while the highest view was held by the ninth. The faculty perception was generally higher in all schools on all items, but they were distinguished from the students in most schools on four items having to do with faculty role and student behavior.

The Inclusion of New Students' Perceptions

An ancillary finding of this study, which was not an answer to the basic questions which guided the study but which was regarded by the investigator as significant, is included here. This study found, in contradistinction to the environmental studies by Pace[5] and Sinclair,[6] that the perceptions of the new students in the sampled schools were not significantly different from those of students who had been in the institutions a longer period of time. Both Pace and Sinclair have eliminated the perceptions of students who have not been in the institutions for a year and a half because their scores were not comparable to the scores of students with longer experience in the sampled institutions. However, because this investigator wished to obtain the perceptions of the ninth grade as a sub-group and because true random selection in the sample schools provided some new students in every grade, it was regarded as important to include their perceptions, if possible. In ten of the sample schools all ninth grade students were new.

In order to determine if the perceptions of these students could be included, statistical comparisons between the new students and their closest peers in each grade were made. Ninth graders were compared with new tenth graders as being the closest group of students to them in age and concerns. A Pearson product moment correlation was

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[5] Pace, op. cit., p. 12.

[6] Sinclair, op. cit.

run on the item response percentages for each group and t tests were made on the resulting means and standard deviations. In no case were the differences between old and new students significant. These results are reported in Table 10.

Since the perceptions of the new students were found not to be different, they were regarded as comparable to those of old students and were included in determining school and sub-group scores on community.

TABLE 10

Comparisons of New and Old Students in the Total Sample

Grade	Means Percent		t Test
	New Students	Old Students	
10	49.50	49.81	$t_{(29)}=.16$
11	50.37	51.19	$t_{(29)}=.56$
12	52.00	51.86	$t_{(29)}=.07$
9 (with new 10th)	48.35	49.50	$t_{(29)}=.63$

None significant (.05), $t < 2.04$

Summary

The questions stated at the end of Chapter I, which have guided the study, have been answered. There are similarities and differences among the selected independent secondary schools when measured for the

degree of community by the community scale of the College and University Environment Scales. There are general patterns of the presence or absence of scale items which characterize the selected schools, but no definite demographic influences on community have been defined. Sub-group perceptions of community in the selected schools differed, but only the faculty difference from the students was statistically significant. There were no clear patterns of items which characterized any of the other sub-groups in the selected schools.

CHAPTER V

SUMMARY, CONCLUSIONS, RECOMMENDATIONS, AND IMPLICATIONS FOR FURTHER RESEARCH

This chapter summarizes the study. It also presents the conclusions reached by the investigator and makes recommendations to educators who are interested in making school environments more humane. Finally, it states implications for further research into areas which have been revealed through the study.

Summary

The major issues addressed in this study were that independent secondary schools are lacking in humane conditions as perceived by learners and that the intensity of humaneness may be perceived in varying degrees by different sub-groups within selected schools.

Specifically, the purpose of the study was to investigage the similarities and differences of humaneness among the selected independent secondary schools as perceived by the people in them. It further sought to compare the perceptions of the students in the four high school grades and the faculty, and to identify demographic variables that were common to emerging patterns in the community aspect of the educational environments.

The theoretical framework for the study was provided by the work of Murray, who suggested that one way of characterizing environments was through the perceptions of the people in that environment, whose behavior results from their transactions with it. Further, the

community scale of Pace's College and University Environment Scales was used to determine the nature of humaneness existing in the selected schools. Because of the recent difficulties being encountered by independent schools and the growing emphasis on humaneness by scholars and critics of education, the study was pertinent and timely.

Eleven independent secondary schools were chosen as a stratified sample with the total faculty and thirty randomly assigned students from each grade being asked to participate. All the respondents were administered the same thirty item community scale from CUES and asked to supply certain biographical data. Demographic data about the schools were obtained on a face sheet. The administration of the survey took place during a six week period from the first of March to mid-April.

The data were analyzed with various electronic data processing techniques such as: frequency count, crosstabulation, and one way analysis of variance. The data were submitted to statistical analysis, tests for significance, correlations and t tests. The study was designed to ascertain the differences among the schools; to ascertain the similarities among the schools; to identify patterns in demographic influences or item responses; and to identify and compare the sub-group responses about the schools.

The study found that the selected independent secondary schools do differ in community, but that most of them were similar. It was also found that community in all the selected schools was relatively low compared with the ideal expressed by the definition and items of

the community scale. The study found that the perceptions of the four high school grades differed from each other and that the faculty perceptions were significantly different from those of the students. The study did not find any demographic variables that could be conclusively linked to the degree of community in a school environment. Other than the two highest scoring schools both being large boys' schools, no significant pattern emerged and the schools did not rank order on size. The high scoring schools were, however, characterized by three of the survey items which were not held in common by the low scoring schools. The low scoring schools were not characterized by any common set of items. Four items in the survey concerning faculty and student roles and behaviors were scored in opposite directions by faculty and students. The findings of the study, then, answered the questions posed by the problem.

Conclusions

The investigator concluded first that for the selected schools and others like them it is possible to characterize the institutional climate by the perceptions of new students as well as those who have been in the schools a longer time. However, even the new students surveyed in the study had been in the institutions for six months. The similar perceptions of new and old students may be due to the closeness of the particular environments measured, in which students are resident and therefore have more interaction with their environment than they would in other institutions. Therefore, based on the findings

of this study, in similar studies of independent school environments using the CUES, future studies could utilize the perceptions of new students who are in their second semester.

Second, the investigator concludes that independent secondary boarding schools, as typified by the schools in this sample, are not high on community when compared with the maximum possible score. When scored by the 66+/33- method, a top score of 60 was possible and the mean of all schools was 34.8, with the highest scoring school scoring 40. When scored by using the mean of all student answers in a school, the top school scored 17.8 and the mean of all eleven schools was 16.19 out of a possible 30. So, by both methods, all schools fell well below the possible top score. Therefore, if the school community is defined by the items in the community scale or by the description of that scale, then independent secondary schools are perceived by their students as low on community. To the degree that the schools fall below the ideal score they may be described as not being friendly, cohesive or group-oriented. The schools are not communities and do not have feelings of group welfare and loyalty encompassing them. Faculty members are not interested in the students and their problems and do not go out of their way to be helpful. Student life tends to be characterized by privacy and detachment rather than by togetherness and sharing.

Third, the schools in the sample are largely similar rather than different in their community scores. Only the two schools on each end of the score distribution were different from each other

statistically. However, though different from each other, they were not different from the schools in the middle of the distribution. This finding supports the second conclusion drawn above. It also suggests that in spite of the selected and assessed demographic characteristics the schools tend to have similar communities. A large Northeast boys' school is similar to a small girls' school in the Midwest in the way students relate to each other and to the faculty.

Fourth, the investigator concludes that the demographic characteristics which were selected for inclusion in the study are not determinants of community. With the exception of the two largest boys' schools, there was no relationship between size and the community score. The environmental determinants of community must be other than sex of the students, the size of the school, whether the school is Church-related or secular, the degree of structure provided for the students, and the amount of co-ordinate education taking place with students of the opposite sex.

The fifth conclusion is that faculty perceptions of the community press of a school environment are significantly different from those of the students. Faculty and student differences could be a cause of low community, or they could be evidence of low community in the selected schools. The faculty and students do not know each other well enough or do not communicate well enough to overcome the differences between them. The faculty perceive that they are warm and responsive and would therefore see little need for change. The students perceive that the faculty are not attending to student needs and are therefore

unhappy with the school. In the lowest scoring schools the faculty-student differences were the least, which may indicate a common dissatisfaction with the administration and the educational climate that is provided for all.

A sixth conclusion was reached concerning the sub-group perceptions, which, while not statistically significant, is enlightening. The student sub-group which consistently had the lowest score on community was the eleventh grade, which would suggest a need to be concerned with the establishment of programs for juniors. The eleventh grade is less satisfied with and more critical of the schools than are the other grades.

Limitations of the Study

The study has two limitations which should be considered in making general applications. First, the study surveyed only residential institutions, and second, the sample size was small. Both of these limitations were the result of the reluctance of school administrators to allow an outsider to gather information on their schools. The sample size may have prevented significant patterns in community from emerging, but it was regarded as representative of the diversity of schools in this sector of education. The absence of independent secondary day schools from the sample suggests that the findings of the study should be generalized only to residential schools.

Recommendations to Educators Concerned about Humane Schools

The findings of the study revealed a need for educators in this sector of education to be concerned about the effect that institutional objectives and programs are having on the students. The study has characterized the selected schools by the perceptions of the students in them. Further, it has demonstrated that faculty perceptions are significantly different from those of students in the same environment. This suggests a need for administration and faculty to study the results of this study for their school and to assess how well the community aspect of the environment, as revealed by the students, compares with the environment intended. Through the literature cited in the second chapter, the investigator suggested that a school strong on community was a goal to be desired, but the schools assessed in this study generally did not score high on community. It is suggested that the administration and faculty examine the present conditions in their schools and attempt to identify the specific practices causing the score. As has been stated, the demographic characteristics examined in this study have no correlation with the school score, so the cause of a particular school's score may be rooted in the conditions, practices and relationships current in each school. The investigator suggests the use of the data for the planning of educational programs in four areas: (1) the curriculum, (2) the grouping of students, (3) the fulfilling of individual needs, and (4) counseling.

In the area of curriculum a faculty could plan for the development

of learning opportunities that would foster the growth of interpersonal relationships. Included might be such things as: making and breaking friendships, learning to work in groups, social concerns of marriage and the family, social problems in the local community, and school problems about which the students and faculty are concerned. These could take place within the present structure or could become the focal point around which a new curricular organization is developed. The curriculum as a whole could be changed to be a shared process rather than a competitive one. Students could be involved with faculty in the curriculum committees and involved with individual teachers in class planning and goal setting.

In using the data for the grouping of students, greatest concern should be given to the placement of eleventh graders both in classes and in residences. Perhaps this is the grade which should have the most caring teachers and the most open and humane dormitory counselors. Special activities could be planned for them during their limbo year when the newness of the school has worn off and they are not yet caught up in the excitement of planning for college.

The data of the community scale could be used for ascertaining individual or group needs from students' perceptions or from correlating the scale with personality assessments of individuals or groups. School guidance personnel could use sub-group results to counsel with individuals about how the school is meeting personal needs. Again, here, community survey results could be used for the prescription of learning opportunities, living arrangements, and individual or group

counseling.

A single school cannot hope to be all things to all men and the results of the community survey could be used in guiding students to schools which would provide the most appropriate environment for them. This concept relates to the first area of assessing the degree to which the intended environment is being achieved. If a school intentionally fosters low community then perhaps it should not accept students who evidence a need for an environment that is high on community.

While these latter suggestions for the use of the community survey are possible, it should be remembered that the CUES survey has the purpose of measuring educational environments and not individual students. The main focus of its use should therefore be on the planning and implementing of change in the educational environment.

Implications for Further Research

As a result of the data derived in the present study, a number of research possibilities presented themselves. This section suggests five areas of research into the community aspect of the educational environment of independent secondary schools.

Since this study was designed to assess the community environment in independent secondary schools, no comparisons were made with public or parochial schools. One fruitful area of further study would be to investigate and compare the community in these three types of schools. This would contribute to the fund of knowledge about secondary schools in general and would provide a broader base for interpretation and

comparison. It would also be well to broaden the number and types of independent schools studied, for many of them focus specifically on the development of community.

One of the shortcomings of this study was that the survey was administered only once in each school. Because of the single administration, reliability of the data over time was impossible to establish. The investigator suggests a study with multiple entry points in the school year to investigate whether perceptions change or remain stable. In this same area, a longitudinal study could be made to determine whether changes in the educational programs of a school were having the intended effect on the community.

A related, but distinct, area would be to investigate the possibility of immediate causes in a school affecting the perceptions of the respondents. How much are students affected by the expulsion of fellow students? How do they feel about a coming merger with another school? How do they perceive the retirement of their school head and his impending replacement? Does the fact that grades just came out and some individuals did not do well influence their perceptions of the school? All of these concerns and more may affect how students feel about their school environment and how they behave in interaction with it.

Since the demographic features measured by this study have no apparent correlation with community scores, what determinants are there of community? An investigation into the attitudes of administrative and teaching personnel could ascertain the influence these

have on community. How does a dogmatic teacher affect the perceptions of his students? What are the characteristics of administrators and teachers in schools that score high on community?

Finally, a study is suggested into how community actually affects learning. It is felt by the authors cited in the review of literature that it does, but this study did not compare community with achievement. Is achievement higher in schools scoring high on community? Is it lower in low scoring schools? Does an individual student who is unhappy in his school do less well than a student with comparable ability who perceives the same school as a warm, caring place?

All of these suggested areas for further research would broaden the fund of knowledge about secondary schooling. Hopefully, they would assist educators in improving the environments for the students. The present study has demonstrated that independent secondary school environments can be measured. It has shown that there are similarities and differences in those schools when measured by the community scale. It has shown that there are patterns of perceptions among the students and faculty. Further research can continue and expand these explorations and findings for the improvement of environments and programs. It is only through examination of present conditions that educators can identify practices and processes that need to be changed in order to prepare students for the society of 1980 or 2000 and beyond.

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A P P E N D I C E S

A P P E N D I X A

The Face Sheet and Instrument

SECONDARY SCHOOL COMMUNITY SURVEY

School Name _____ School # _____

1. Is the school boarding or day? _____

2. If boarding, how many day students are there? _____

3. What is your total enrollment? _____

4. What is your number of faculty? _____

5. Do you have grades other than 9-12? If so, which ones? _____

6. With what donomination (if any) is the school affiliated? _____

7. Do you have required chapel of any kind? _____ What do you require?

_____

_____

8. Please tell us something about the physical plant - age of buildings etc. _____

_____

_____

9. Do you have any kind of work program? _____ Describe it briefly

_____

_____

10. Do you have minority group members in your school? _____

How many blacks? _____ Others? _____

11. If your school is a single sex school comment upon the extent of coordination with a school of students of the opposite sex.

_____

_____

_____

_____

Secondary School Community Survey continued

12. Are there any special curcumstances in the school now or which have occurred recently of which the investigator should be aware?

_____

_____

_____

_____

_____

SECONDARY SCHOOL COMMUNITY SURVEY

INSTRUCTIONS TO RESPONDENTS

We are interested in your ideas about the type of school in which you live, study and work. You know a lot about the school and what it is like because you live in it and work in it. We are asking you to be a reporter and to tell your thoughts about your school. Please understand that this is not a test and there are no right or wrong answers. We simply want your responses about your school

Turn your answer sheet so that the blank spaces for information are at the top, but do not fill these in. In the lower right hand corner you will see a number of spaces for biographicl information. Please fill these in as directed. USE #2 PENCIL.

Biographic Information

A) In the columns marked "Student Number", place the number of this school as directed by the survey administrator.

B) In the column marked "Sex", blacken the appropriate space.

C) In the columns marked "Birth Date", blacken the month and the spaces corresponding to the last two digits of the year you were born.

D) In the "Grade" column, blacken the space for the grade you are now in. Faculty blacken the space "F".

E) Now, in the left hand section where the numbers 1 through 6 appear, mark one space in one column only. Use the "0" space.

Number of years at this school:		
	less than 1:	mark in column 1
	1 to 2 yrs :	mark in column 2
	3 to 4 yrs :	mark in column 3
	5 to 10 yrs:	mark in column 4
	10 or more :	mark in column 5

Now turn your answer sheets so that the information you have just filled in is at the top and the sheet is laying the long way.

Marking Answers to Survey Items

The items in this survey describe conditions that occur in secondary schools. Please indicate whether or not each of these items characterizes your school. Do not judge the items in terms of "good" or "bad" behavior, but read each item carefully and respond in terms of how well the statement describes your school as a whole. There are 30 statements about schools in this survey. You are to mark each one either TRUE or FALSE.

We will use only the columns marked "1" and "2" for each item. 1 will always be TRUE and 2 will always be FALSE. When you think the sentence tells the way things usually are in your school, what happens or might happen there, or the way people usually act or feel, mark that sentence TRUE by blackening space number 1 on the answer sheet.

Fill in space number 2 on the answer sheet if you think the sentence is FALSE or is not the way things usually are in your school, is not what happens or might happen there, or is not the way people usually act or feel.

The following sample shows how to mark a sentence.

	1	2	3	4	5
SAMPLE: Homework in this school is very easy.	■	[ ]	[ ]	[ ]	[ ]

In this example the person marked the answer TRUE, space number 1, to show that homework in this school is very easy.

It is important to remember that the sentences are about the total school. Think about each sentence carefully and answer each one as honestly as you can. Take your time and mark only one space for each sentence. Make sure all sentences are marked. If you have to erase, please erase completely as stray marks will cause errors in scoring. When you finish, please check your erasures and be sure that each space has been filled in completely.

Now turn to the next page and begin with sentence number 1 and space number 1 on your answer sheet.

1. It is easy to take notes in most courses.

2. The school helps everyone get acquainted.

3. Students often run errands or do other personal services for the faculty.

4. The history and traditions of the school are strongly emphasized.

5. The teachers go out of their way to help you.

6. There is a great deal of borrowing and sharing among the students.

7. When students run a project or put on a show everybody knows about it.

8. Many upperclassmen play an active role in helping new students adjust to campus life.

9. Students exert considerable pressure on one another to live up to the expected codes of conduct.

10. Graduation is a pretty matter-of-fact, unemotional event.

11. This school has a reputation for being very friendly.

12. All students must live in school housing.

13. Instructors clearly explain the goals and purposes of their courses.

14. Students have many opportunities to develop skill in organizing and directing the work of others.

15. Most of the faculty are not interested in students' personal problems.

16. Students quicly learn what is done and what is not done on this campus.

17. It's easy to get a group together for card games, singing, going to the movies, etc.

18. Students commonly share their problems.

19. Faculty members rarely or never call students by their first names.

20. There is a lot of group spirit.

21. The campus design, architecture and landscaping suggest a friendly atmosphere.

22. Student groups often meet in faculty members' homes.

23. Counseling and guidance services are really personal, patient, and helpful.

24. There are courses which involve students in activities with groups or agencies in the local community.

25. Most of the students here are pretty happy.

26. There are courses or voluntary seminars that deal with problems of marriage and the family.

27. In most classes the atmosphere is very friendly.

28. Groups of students from the school often get together for parties or visits during the holidays.

29. Most students seem to have a genuine affection for this school.

30. There are courses or voluntary seminars that deal with problems of social adjustment.

A P P E N D I X B

Item Responses by Sub-Group by School

Face Sheets

SCHOOL 01

Percentage of Respondent Perceptions in the Keyed Direction by Sub-Group

Item*	Ninth Grade	Tenth Grade	Eleventh Grade	Twelfth Grade	Faculty
1	76.9	71.4	67.9	84.6	81.3
2	38.5	42.9	35.7	46.2	81.3
3	30.8	53.6	35.7	57.7	50.0
4	84.6	60.7	42.9	26.9	6.3
5	69.2	32.1	17.9	57.7	81.3
6	69.2	75.0	67.9	84.6	62.5
7	76.9	67.9	78.6	53.8	75.0
8	0.0	25.0	14.3	23.1	25.0
9	23.1	25.0	7.1	11.5	0.0
10	38.5	39.3	25.0	42.3	62.5
11	30.8	60.7	71.4	76.9	75.0
12	30.8	28.6	25.0	30.8	18.8
13	53.8	35.7	46.4	46.2	56.3
14	61.5	21.4	42.9	46.2	68.8
15	76.9	57.1	50.0	69.2	93.8
16	76.9	85.7	85.7	88.5	81.3
17	30.8	75.0	71.4	73.1	62.5
18	53.8	57.1	75.0	84.6	62.5
19	92.7	96.4	71.4	100.0	93.8
20	38.5	25.0	21.4	23.1	12.5
21	69.2	67.9	64.3	88.5	93.8
22	61.5	39.3	42.9	57.7	81.3
23	46.2	25.0	25.0	50.0	68.8
24	84.6	78.6	82.1	69.2	50.0
25	61.5	32.1	21.4	30.8	62.5
26	15.4	3.6	10.7	0.0	12.5
27	69.2	75.0	64.3	73.1	81.3
28	53.8	35.7	46.4	53.8	75.0
29	38.5	10.7	10.7	3.8	31.3
30	30.8	21.4	21.4	26.9	31.3

* All items except 10, 15 and 19 were keyed TRUE

SCHOOL 02

Percentage of Respondent Perceptions in the Keyed Direction by Sub-Group

Item*	Ninth Grade	Tenth Grade	Eleventh Grade	Twelfth Grade	Faculty
1	77.4	76.5	87.5	80.6	69.4
2	74.2	41.2	59.4	38.7	72.2
3	41.9	41.2	31.3	54.8	33.3
4	58.1	38.2	37.5	45.2	25.0
5	67.7	64.7	62.5	64.5	86.1
6	67.7	88.2	93.8	80.6	58.3
7	29.0	38.2	43.8	48.4	38.9
8	61.3	38.2	37.5	51.6	61.1
9	16.1	5.9	9.4	12.9	11.1
10	54.8	47.1	62.5	71.0	52.8
11	77.4	82.4	68.8	71.0	80.6
12	38.7	35.3	18.8	54.8	38.9
13	80.6	58.8	71.9	64.5	58.3
14	29.0	47.1	21.9	22.6	44.4
15	67.7	70.6	87.5	74.2	91.7
16	80.6	88.2	78.1	74.2	77.8
17	58.1	85.3	87.5	100.0	69.4
18	64.5	73.5	71.9	87.1	83.3
19	80.6	88.2	96.9	83.9	97.2
20	35.5	38.2	43.8	51.6	33.3
21	80.6	91.2	75.0	77.4	77.8
22	29.0	23.5	37.5	51.6	52.8
23	67.7	79.4	59.4	45.2	88.9
24	61.3	70.6	65.6	64.5	86.1
25	58.1	70.6	56.3	67.7	80.6
26	35.5	41.2	40.6	22.6	36.1
27	67.7	85.3	81.3	80.6	91.7
28	38.7	58.8	56.3	67.7	66.7
29	22.6	32.4	31.3	54.8	69.4
30	45.2	67.6	53.1	35.5	66.7

* All items except 10, 15 and 19 were keyed TRUE

SCHOOL 03

Percentage of Respondent Perceptions in the Keyed Direction by Sub-Group

Item*	Ninth Grade	Tenth Grade	Eleventh Grade	Twelfth Grade	Faculty
1	80.8	91.3	90.3	92.0	83.8
2	84.6	65.2	51.6	68.0	75.7
3	26.9	34.8	35.5	40.0	40.5
4	73.1	87.0	93.5	84.0	43.2
5	69.2	69.2	29.0	44.0	86.5
6	80.8	82.6	90.3	96.0	86.5
7	69.2	60.9	67.7	80.0	89.2
8	30.8	21.7	9.7	28.0	59.5
9	34.6	8.7	22.6	24.0	18.9
10	53.8	60.9	48.4	56.0	54.1
11	84.6	78.3	77.4	64.0	91.9
12	53.8	47.3	58.1	40.0	64.9
13	76.9	82.6	38.7	44.0	70.3
14	38.5	43.5	35.5	44.0	75.7
15	80.8	65.2	64.5	60.0	94.6
16	84.6	91.3	83.9	92.0	91.9
17	65.4	73.9	83.9	88.0	86.5
18	73.1	78.3	58.1	72.0	75.7
19	88.5	100.0	87.1	96.0	100.0
20	69.2	69.6	41.9	56.0	64.9
21	96.2	78.3	87.1	84.0	89.2
22	26.9	8.7	19.4	24.0	75.7
23	76.9	39.1	54.8	56.0	75.7
24	80.8	78.3	58.1	68.0	64.9
25	88.5	73.9	45.2	56.0	83.8
26	3.8	0.0	6.5	8.0	27.0
27	96.2	87.0	93.5	76.0	100.0
28	11.5	43.5	64.5	56.0	70.3
29	65.4	39.1	38.7	40.0	81.1
30	34.6	26.1	35.5	40.0	62.2

* All items except 10, 15 and 19 were keyed TRUE

SCHOOL 05

Percentage of Respondent Perceptions in the Keyed Direction by Sub-Group

Item*	Ninth Grade	Tenth Grade	Eleventh Grade	Twelfth Grade	Faculty
1	77.4	80.0	76.7	73.1	72.2
2	80.6	66.7	50.0	46.2	72.2
3	61.3	63.3	46.7	57.7	77.8
4	67.7	76.7	70.0	80.8	61.1
5	61.3	33.3	60.0	30.8	72.2
6	90.3	90.0	90.0	96.2	94.4
7	71.0	53.3	66.7	73.1	50.0
8	41.9	33.3	26.7	34.6	72.2
9	41.9	30.0	3.3	15.4	16.7
10	71.0	50.0	63.3	57.7	38.9
11	67.7	63.3	60.0	50.0	83.3
12	19.4	30.0	33.3	46.2	100.0
13	54.8	46.7	43.3	46.2	66.7
14	38.7	26.7	20.0	23.1	27.8
15	67.7	40.0	50.0	42.3	77.8
16	77.4	86.7	80.0	84.6	83.3
17	80.6	66.7	70.0	84.6	55.6
18	67.7	76.7	56.7	92.3	83.3
19	71.0	80.0	83.3	80.8	88.9
20	61.3	36.7	16.7	26.9	11.1
21	61.3	60.0	56.7	30.8	72.2
22	35.5	23.3	26.7	46.2	33.3
23	67.7	53.3	53.3	50.0	66.7
24	38.7	33.3	53.3	50.0	38.9
25	48.4	16.7	10.0	34.6	38.9
26	6.5	6.7	10.0	7.7	22.2
27	61.3	60.0	70.0	76.9	83.3
28	67.7	66.7	56.7	84.6	94.4
29	12.9	10.0	3.3	7.7	33.3
30	12.9	10.0	6.7	7.7	5.6

* All items except 10, 15 and 19 were keyed TRUE

SCHOOL 06

Percentage of Respondent Perceptions in the Keyed Direction by Sub-Group

Item	Ninth Grade	Tenth Grade	Eleventh Grade	Twelfth Grade	Faculty
1	64.5	74.1	87.1	100.0	76.0
2	71.0	44.4	64.5	47.4	64.0
3	41.9	29.6	22.6	31.6	52.0
4	41.9	59.3	71.0	63.2	60.0
5	58.1	44.4	48.4	57.9	88.0
6	93.5	74.1	87.1	78.9	92.0
7	67.7	77.8	64.5	63.2	48.0
8	25.8	18.5	19.4	21.1	60.0
9	6.5	22.2	6.5	0.0	20.0
10	61.3	66.7	51.6	47.4	36.0
11	74.2	63.0	45.2	31.6	36.0
12	22.6	14.8	45.2	26.3	36.0
13	54.8	63.0	29.0	42.1	80.0
14	54.8	66.7	32.3	21.1	52.0
15	71.0	48.1	45.2	57.9	72.0
16	80.6	77.8	74.2	94.7	80.0
17	71.0	74.1	71.0	52.6	56.0
18	67.7	66.7	74.2	52.6	72.0
19	87.1	88.9	83.9	94.7	92.0
20	51.6	37.0	35.5	10.5	20.0
21	58.1	51.9	61.3	57.9	64.0
22	32.3	25.9	22.6	26.3	44.0
23	67.7	59.3	29.0	26.3	52.0
24	51.6	48.1	67.7	42.1	64.0
25	41.9	40.7	29.0	26.3	48.0
26	16.1	29.6	19.4	52.6	68.0
27	80.6	66.7	80.6	84.2	80.0
28	25.8	25.9	29.0	31.6	48.0
29	22.6	7.4	9.7	10.5	32.0
30	16.1	11.1	12.9	10.5	12.0

* All items except 10, 15 and 19 were keyed TRUE

SCHOOL 07

Percentage of Respondent Perceptions in the Keyed Direction by Sub-Group

Item*	Ninth Grade	Tenth Grade	Eleventh Grade	Twelfth Grade	Faculty
1	64.7	66.7	81.3	80.0	82.6
2	41.2	60.0	31.3	40.0	65.2
3	82.3	63.3	65.6	43.3	39.1
4	64.7	80.0	56.3	53.3	39.1
5	47.1	70.0	59.4	50.0	73.9
6	88.2	90.0	93.8	96.7	87.0
7	41.2	56.7	68.8	80.0	52.2
8	23.5	40.0	25.0	30.0	34.8
9	41.2	50.0	12.5	13.3	21.7
10	64.7	66.7	68.8	86.7	73.9
11	35.3	36.7	31.3	46.7	21.7
12	76.5	90.0	96.9	90.0	91.3
13	47.1	60.0	53.1	50.0	65.2
14	29.4	43.3	43.8	50.0	47.8
15	58.8	60.0	68.8	60.0	73.9
16	76.5	83.3	84.4	86.7	78.3
17	70.6	86.7	78.1	83.3	56.5
18	52.9	66.7	62.5	66.7	73.9
19	47.1	80.0	78.1	83.3	78.3
20	29.4	50.0	37.5	33.3	13.0
21	52.9	60.0	53.1	50.0	56.5
22	23.5	46.7	53.1	26.7	56.5
23	35.3	53.3	50.0	46.7	47.8
24	29.4	33.3	34.4	23.3	30.4
25	17.6	13.3	21.9	30.0	30.4
26	11.8	6.7	12.5	0.0	0.0
27	76.5	83.3	71.9	66.7	65.2
28	35.3	43.3	62.5	60.0	43.5
29	5.9	13.3	25.0	20.0	43.5
30	23.5	23.3	25.0	23.3	21.7

* All items except 10, 15 and 19 were keyed TRUE

SCHOOL 11

Percentage of Respondent Perceptions in the Keyed Direction by Sub-Group

Item*	Ninth Grade	Tenth Grade	Eleventh Grade	Twelfth Grade	Faculty
1	88.5	92.9	100.0	93.8	75.0
2	57.7	39.3	42.3	43.8	81.3
3	42.3	46.4	30.8	31.3	31.3
4	73.1	89.3	92.3	78.1	62.5
5	65.4	57.1	61.5	65.6	87.5
6	100.0	96.4	84.6	93.8	100.0
7	57.7	53.6	38.5	31.3	50.0
8	38.5	50.0	65.4	62.5	87.5
9	11.5	10.7	11.5	15.6	6.3
10	61.5	78.6	88.5	65.6	56.3
11	76.9	85.7	65.4	81.3	81.3
12	23.1	39.3	19.2	46.9	25.0
13	42.3	42.9	53.8	53.1	93.8
14	38.5	32.1	26.9	12.5	31.3
15	65.4	50.0	73.1	56.3	100.0
16	80.8	82.1	84.6	78.1	87.5
17	50.0	78.6	53.8	71.9	62.5
18	80.8	89.3	92.3	78.1	93.8
19	96.2	100.0	100.0	90.6	93.8
20	34.6	42.9	26.9	18.8	25.0
21	88.5	89.3	84.6	81.3	93.8
22	50.0	42.9	50.0	37.5	43.8
23	65.4	46.4	57.7	46.9	87.5
24	80.8	82.1	65.4	68.8	81.3
25	53.8	42.9	38.5	37.5	43.8
26	23.1	14.3	11.5	18.8	56.3
27	88.5	78.6	73.1	65.6	93.8
28	61.5	67.9	46.2	37.5	81.3
29	23.1	7.1	26.9	25.0	43.8
30	38.5	17.9	53.8	18.8	62.5

* All items except 10, 15 and 19 were keyed TRUE

SCHOOL 12

Percentage of Respondent Perceptions in the Keyed Direction by Sub-Group

Item*	Ninth Grade	Tenth Grade	Eleventh Grade	Twelfth Grade	Faculty
1	58.8	78.1	73.3	80.0	65.2
2	64.7	59.4	70.0	60.0	73.9
3	52.9	59.4	60.0	53.3	56.5
4	41.2	37.5	13.3	22.2	13.0
5	64.7	62.5	53.3	73.3	91.3
6	94.1	90.6	93.3	93.3	87.0
7	47.1	62.5	70.0	60.0	56.5
8	35.3	28.1	30.0	20.0	52.2
9	11.8	12.5	13.3	24.4	30.4
10	70.6	62.5	86.7	86.7	73.9
11	47.1	56.3	66.7	68.9	82.6
12	17.6	25.0	10.0	13.3	21.7
13	17.6	37.5	46.7	33.3	43.5
14	47.1	53.1	40.0	37.8	43.5
15	82.4	71.9	73.3	82.2	28.3
16	76.5	71.9	66.7	73.3	65.2
17	52.9	71.9	70.0	80.0	56.5
18	70.5	87.5	93.3	80.0	82.6
19	94.1	78.1	93.3	95.6	82.6
20	23.5	40.6	33.3	26.7	47.8
21	94.1	87.5	100.0	93.3	91.3
22	35.3	62.5	63.3	60.0	52.2
23	52.9	53.1	30.0	31.1	52.2
24	41.2	62.5	73.3	73.3	82.6
25	35.3	53.1	60.0	51.1	60.9
26	11.8	25.0	23.3	33.3	30.4
27	88.2	78.1	90.0	91.1	91.3
28	17.6	59.4	66.7	68.9	43.5
29	58.8	46.9	66.7	48.9	78.3
30	17.6	21.9	16.7	37.8	17.4

* All items except 10, 15 and 19 were keyed TRUE

SCHOOL 13

Percentage of Respondent Perceptions in the Keyed Direction by Sub-Group

Item*	Ninth Grade	Tenth Grade	Eleventh Grade	Twelfth Grade	Faculty
1	83.3	84.0	86.7	88.9	88.9
2	30.0	24.0	51.1	25.0	61.1
3	46.7	44.0	66.7	36.1	33.3
4	0.0	16.0	22.2	5.6	11.1
5	76.7	56.0	66.7	75.0	100.0
6	93.3	84.0	75.6	88.9	72.2
7	73.3	36.0	48.9	41.7	50.0
8	60.0	20.0	17.8	16.7	50.0
9	3.3	8.0	2.2	2.8	22.2
10	90.0	92.0	86.7	83.3	77.8
11	33.3	28.0	15.6	30.6	61.1
12	0.0	20.0	4.4	19.4	11.1
13	40.0	56.0	51.1	72.2	72.2
14	43.3	52.0	62.2	66.7	61.1
15	70.0	36.0	71.1	66.7	94.4
16	33.3	40.0	42.2	38.9	66.7
17	70.0	44.0	35.6	41.7	55.6
18	80.0	88.0	77.8	86.1	77.8
19	100.0	96.0	95.6	100.0	94.4
20	50.0	20.0	22.2	8.3	27.8
21	63.3	76.0	77.8	63.9	83.3
22	10.0	28.0	37.8	27.8	55.6
23	60.0	48.0	57.8	44.4	100.0
24	86.7	88.0	84.4	86.1	100.0
25	53.3	44.0	60.0	58.3	72.2
26	20.0	40.0	17.8	27.8	83.3
27	63.3	80.0	80.0	86.1	100.0
28	73.3	56.0	68.9	69.4	94.4
29	50.0	64.0	40.0	27.8	55.6
30	53.3	72.0	33.3	44.4	61.1

* All items except 10, 15 and 19 were keyed TRUE

SCHOOL 14

Percentage of Respondent Perceptions in the Keyed Direction by Sub-Group

Item*	Ninth Grade	Tenth Grade	Eleventh Grade	Twelfth Grade	Faculty
1	82.4	72.4	81.8	88.9	74.1
2	94.1	58.6	52.3	59.3	63.0
3	35.3	13.8	13.6	37.0	55.6
4	58.8	31.0	29.5	29.6	22.2
5	11.8	37.9	31.8	48.1	70.4
6	94.1	96.6	93.2	92.6	92.6
7	64.7	65.5	61.4	74.1	51.9
8	52.9	41.4	34.1	33.3	55.6
9	5.9	20.7	9.1	3.7	29.6
10	82.4	79.3	63.6	74.1	55.6
11	70.6	44.8	29.5	48.1	59.3
12	52.9	27.6	40.9	40.7	37.0
13	23.5	41.4	22.7	44.4	70.4
14	41.2	31.0	29.5	44.4	25.9
15	41.2	55.2	47.7	40.7	66.7
16	82.4	75.9	84.1	74.1	77.8
17	76.5	79.3	77.3	85.2	48.1
18	76.5	82.8	81.8	88.9	74.1
19	88.2	96.6	93.2	92.9	92.6
20	29.4	20.7	11.4	18.5	25.9
21	58.8	62.1	61.4	37.0	81.5
22	41.2	27.6	20.5	18.5	14.8
23	41.2	27.6	18.2	25.9	37.0
24	70.6	96.6	65.9	81.5	63.0
25	88.2	58.6	40.9	63.0	48.1
26	35.3	17.2	15.9	11.1	51.9
27	82.4	69.0	52.3	63.0	85.2
28	52.9	51.7	72.7	85.2	81.5
29	64.7	31.0	27.3	25.9	40.7
30	52.9	41.4	31.8	59.3	37.0

* All items except 10, 15 and 19 were keyed TRUE

SCHOOL 15

Percentage of Respondent Perceptions in the Keyed Direction by Sub-Group

Item*	Ninth Grade	Tenth Grade	Eleventh Grade	Twelfth Grade	Faculty
1	66.7	90.5	85.7	82.4	75.0
2	83.3	81.0	66.7	82.4	50.0
3	83.3	57.1	76.2	64.7	41.7
4	83.3	66.7	66.7	58.8	75.0
5	83.3	66.7	61.9	52.9	83.3
6	100.0	100.0	100.0	100.0	75.0
7	50.0	61.9	57.1	64.7	66.7
8	33.3	33.3	42.9	47.1	16.7
9	16.7	23.8	14.3	0.0	16.7
10	66.7	85.7	90.5	76.5	91.7
11	83.3	66.7	33.3	41.2	58.3
12	100.0	100.0	95.2	100.0	75.0
13	33.3	42.9	38.1	47.1	41.7
14	33.3	38.1	52.4	64.7	50.0
15	66.7	81.0	71.4	47.1	75.0
16	83.3	66.7	90.5	70.6	58.3
17	83.3	57.1	61.9	52.9	66.7
18	100.0	100.0	85.7	82.4	66.7
19	100.0	95.2	90.5	100.0	91.7
20	33.3	38.1	19.0	11.8	8.3
21	33.3	71.4	52.4	52.9	91.7
22	66.7	14.3	14.3	17.6	33.3
23	66.7	57.1	33.3	35.3	58.3
24	66.7	47.6	47.6	41.2	66.7
25	50.0	38.1	23.8	29.4	41.7
26	16.7	0.0	0.0	0.0	0.0
27	66.7	81.0	81.0	82.4	83.3
28	83.3	81.0	71.4	58.8	75.0
29	50.0	38.1	47.6	17.6	50.0
30	16.7	38.1	23.8	35.3	50.0

* All items except 10, 15 and 19 were keyed TRUE

SECONDARY SCHOOL COMMUNITY SURVEY

School Name _____ School # 01

1. Is the school boarding or day? Boarding

2. If boarding, how many day students are there? 20

3. What is your total enrollment? 220

4. What is your number of faculty? 26

5. Do you have grades other than 9-12? If so, which ones? _____

6. With what donomination (if any) is the school affiliated? None

7. Do you have required chapel of any kind? YES What do you require?

Sunday Vespers once a month - otherwise Friday Vespers. The rest are voluntary services.

8. Please tell us something about the physical plant - age of buildings etc. Considerable variation: library 1923, School House 1900, science building 1963, the rest vary from 1900 - 1960's.

9. Do you have any kind of work program? Yes Describe it briefly

Every boy is assigned to a work job. There is considerable voluntary work for the scholarship fund.

10. Do you have minority group members in your school? yes

How many blacks? 13 Others? Chinese, Indian (Hindu)

11. If your school is a single sex school comment upon the extent of coordination with a school of students of the opposite sex.

Co-ordinated with a neighboring girls' school. Most classes are mixed, with the exception of physics and 9th grade English.

Secondary School Community Survey continued (School 01) Page two

12. Are there any special curcumstances in the school now or which have occurred recently of which the investigator should be aware?

Three Black students were suspended the day of the survey administration for an infraction of the smoking rules.

SECONDARY SCHOOL COMMUNITY SURVEY

School Name _____ School # 02

1. Is the school boarding or day? Boarding

2. If boarding, how many day students are there? 44

3. What is your total enrollment? 626

4. What is your number of faculty? 78

5. Do you have grades other than 9-12? If so, which ones? _____

6. With what donomination (if any) is the school affiliated? None

7. Do you have required chapel of any kind? Yes What do you require?

Sunday chapel for freshmen and sophomores.

8. Please tell us something about the physical plant - age of buildings etc. School founded 1881 - class buildings: 1886, 1952, 1966; dorms: 1886, 1895, 1911, 1952, 1969; gym: 1911, 1957; dining hall 1911; library 1911, 1966.

9. Do you have any kind of work program? Yes Describe it briefly

All housekeeping, kitchen, and much of the grounds work. Students work six periods per week - some responsible jobs (office, library, supervisory).

10. Do you have minority group members in your school? Yes

How many blacks? 30 Others? 8 Orientals

11. If your school is a single sex school comment upon the extent of coordination with a school of students of the opposite sex.

Regular and extensive co-ordination at all levels with a nearby girls' school - class, extra-curricular, social.

Secondary School Community Survey continued (School 02) Page two

12. Are there any special curcumstances in the school now or which have occurred recently of which the investigator should be aware?

The two schools are in the process of becoming one school by next September. The headmaster of this school resigned to go to another school and will not be replaced next year.

SECONDARY SCHOOL COMMUNITY SURVEY

School Name _____ School # 03

1. Is the school boarding or day? Boarding

2. If boarding, how many day students are there? 42

3. What is your total enrollment? 520

4. What is your number of faculty? 65

5. Do you have grades other than 9-12? If so, which ones? Post-grad.

6. With what donomination (if any) is the school affiliated? None

7. Do you have required chapel of any kind? Yes What do you require?

Church attendance 3-6 times per term

8. Please tell us something about the physical plant - age of buildings etc. Age of buildings range from 1756 to 1968. Large library and media center, spacious campus, single rooms only in dorms, plant evaluated at $11 million.

9. Do you have any kind of work program? Limited Describe it briefly

Table waiting and kitchen duty in dining hall.

10. Do you have minority group members in your school? Yes

How many blacks? 11 Others? 9 Oriental

11. If your school is a single sex school comment upon the extent of coordination with a school of students of the opposite sex.

Weekly social activities with girls' school plus daily leisure time activities with nearby girls' school which includes dramatics, special conferences, etc.

Secondary School Community Survey continued (School 03) Page two

12. Are there any special curcumstances in the school now or which have occurred recently of which the investigator should be aware?

There are no written rules and regulations.

SECONDARY SCHOOL COMMUNITY SURVEY

School Name _____ School # 05

1. Is the school boarding or day? Boarding

2. If boarding, how many day students are there? 12

3. What is your total enrollment? 198

4. What is your number of faculty? 20

5. Do you have grades other than 9-12? If so, which ones? PG(4)

6. With what donomination (if any) is the school affiliated? Epis.

7. Do you have required chapel of any kind? Yes What do you require?

Required - Tuesday and Sunday; Voluntary - Thursday

8. Please tell us something about the physical plant - age of buildings etc. All buildings built prior to 1951 except: 6 faculty residences, new dormitory, new gym, new study hall - classroom building.

9. Do you have any kind of work program? Yes Describe it briefly

School is divided into three student work squads who clean up the campus, etc., for 15 minute period every third week.

10. Do you have minority group members in your school? Yes

How many blacks? 0 Others? 1

11. If your school is a single sex school comment upon the extent of coordination with a school of students of the opposite sex.

Male - exchange two-week day program with sister school.

Secondary School Community Survey continued (School 05) Page two

12. Are there any special curcumstances in the school now or which have occurred recently of which the investigator should be aware?

Headmaster resigning - third phase of building program to be initiated.

SECONDARY SCHOOL COMMUNITY SURVEY

School Name _____ School # 06

1. Is the school boarding or day? Boarding

2. If boarding, how many day students are there? 47

3. What is your total enrollment? 376

4. What is your number of faculty? 51

5. Do you have grades other than 9-12? If so, which ones? n/a

6. With what donomination (if any) is the school affiliated? None

7. Do you have required chapel of any kind? None What do you require?

8. Please tell us something about the physical plant - age of buildings etc.

9. Do you have any kind of work program? Yes Describe it briefly

Boys take care of rooms, wait on table in turn - also each boy has additional (10 minute to 15 minute) work job each day.

10. Do you have minority group members in your school? Yes

How many blacks? 12 Others? Tai - Chinese

11. If your school is a single sex school comment upon the extent of coordination with a school of students of the opposite sex.

2 girls - faculty member - a few girls here for two classes.

Secondary School Community Survey continued (School 06) Page two

12. Are there any special curcumstances in the school now or which have occurred recently of which the investigator should be aware?

SECONDARY SCHOOL COMMUNITY SURVEY

School Name _____ School # 07

1. Is the school boarding or day? Boarding

2. If boarding, how many day students are there? None

3. What is your total enrollment? 170

4. What is your number of faculty? 22 Teaching

5. Do you have grades other than 9-12? If so, which ones? None

6. With what donomination (if any) is the school affiliated? Epis.

7. Do you have required chapel of any kind? Yes What do you require?

Tuesday and Thursday evenings. Sunday noon.

8. Please tell us something about the physical plant - age of buildings etc. Buildings range in age from 90 years to 2.

9. Do you have any kind of work program? Yes Describe it briefly

Student work in dining room, grounds (for discipline), general dormitory responsibilities.

10. Do you have minority group members in your school? Yes

How many blacks? 5 Others? 4

11. If your school is a single sex school comment upon the extent of coordination with a school of students of the opposite sex.

Coordination in science courses - expected to be fully coordinated next year.

Secondary School Community Survey continued (School 07) Page two

12. Are there any special curcumstances in the school now or which have occurred recently of which the investigator should be aware?

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SECONDARY SCHOOL COMMUNITY SURVEY

School Name _____ School # 11

1. Is the school boarding or day? Boarding

2. If boarding, how many day students are there? 25

3. What is your total enrollment? 595

4. What is your number of faculty? 76 Teaching Faculty (100 total fac. status)

5. Do you have grades other than 9-12? If so, which ones? No

6. With what donomination (if any) is the school affiliated? None

7. Do you have required chapel of any kind? Yes What do you require? (3 or 4 days a week). Approximately half the Sundah chapels are required.

8. Please tell us something about the physical plant - age of buildings etc. Varies - oldest building about 1880 - newest, the Gymnasium, opened this week.

9. Do you have any kind of work program? Yes Describe it briefly The cooking and cleaning is done by the students. They work one period a day - about 45-60 minutes.

10. Do you have minority group members in your school? Yes

How many blacks? 33 Others? 6

11. If your school is a single sex school comment upon the extent of coordination with a school of students of the opposite sex.

About 100 girls go to a neighboring boys' school and an equal number of boys come from that school to our school for one or more classes. Social and extra-curricular activities are coed.

Secondary School Community Survey continued (School 11) Page two

12. Are there any special curcumstances in the school now or which have occurred recently of which the investigator should be aware?

We will merge with our neighboring boys' school next year.

SECONDARY SCHOOL COMMUNITY SURVEY

School Name _____ School # 12

1. Is the school boarding or day? Both

2. If boarding, how many day students are there? 64

3. What is your total enrollment? 150

4. What is your number of faculty? 20/21

5. Do you have grades other than 9-12? If so, which ones? _____

6. With what donomination (if any) is the school affiliated? _____

7. Do you have required chapel of any kind? _____ What do you require?

_____

_____

8. Please tell us something about the physical plant - age of buildings etc. 12 buildings - gymnasium and lounge are new - classroom building pre 1900.

_____

9. Do you have any kind of work program? Yes Describe it briefly

The girls clean their own rooms and work in the kitchen

_____

10. Do you have minority group members in your school? Yes

How many blacks? 7 Others? 2 Thai

11. If your school is a single sex school comment upon the extent of coordination with a school of students of the opposite sex.

A few girls go to a neighboring boys' school for classes.

_____

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Secondary School Community Survey continued (School 12) Page two

12. Are there any special curcumstances in the school now or which have occurred recently of which the investigator should be aware?

Merger with neighboring boys' school impending.

SECONDARY SCHOOL COMMUNITY SURVEY

School Name _____ School # 13

1. Is the school boarding or day? Both

2. If boarding, how many day students are there? 230

3. What is your total enrollment? 330 (217 in grades 9-12)

4. What is your number of faculty? 42 (31 faculty in grades 9-12)

5. Do you have grades other than 9-12? If so, which ones? 6-8

6. With what donomination (if any) is the school affiliated? R.C.

7. Do you have required chapel of any kind? No What do you require?

8. Please tell us something about the physical plant - age of buildings etc. Original building completed in 1925; all additional buildings completed since then.

9. Do you have any kind of work program? Yes Describe it briefly Volunteer Service Program in grades 6-12. Senior Project work-study for six weeks in April-May.

10. Do you have minority group members in your school? Yes

How many blacks? 13 Others? Latin-Americans

11. If your school is a single sex school comment upon the extent of coordination with a school of students of the opposite sex.

Coordinate classes with a boys' school located five minutes away.

Secondary School Community Survey continued (School 13) Page two

12. Are there any special curcumstances in the school now or which have occurred recently of which the investigator should be aware?

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SECONDARY SCHOOL COMMUNITY SURVEY

School Name _____ School # 14

1. Is the school boarding or day? Boarding

2. If boarding, how many day students are there? 11

3. What is your total enrollment? 218

4. What is your number of faculty? 25

5. Do you have grades other than 9-12? If so, which ones? n/a

6. With what donomination (if any) is the school affiliated? None

7. Do you have required chapel of any kind? Yes What do you require?

Vespers. Sunday. Not really religious in nature.

8. Please tell us something about the physical plant - age of buildings etc. One large building contracted between 1930 and 1968.

Cymnasium 1970.

9. Do you have any kind of work program? No Describe it briefly

10. Do you have minority group members in your school? Not really

How many blacks? 1 Others? _____

11. If your school is a single sex school comment upon the extent of coordination with a school of students of the opposite sex.

Some coordination with a neighboring boys' school. One human relations course. Coordination mainly of a social nature.

Secondary School Community Survey continued (School 14) Page two

12. Are there any special curcumstances in the school now or which have occurred recently of which the investigator should be aware?

There are no written rules and regulations.

SECONDARY SCHOOL COMMUNITY SURVEY

School Name _____ School # 15

1. Is the school boarding or day? Boarding

2. If boarding, how many day students are there? _____

3. What is your total enrollment? 70

4. What is your number of faculty? 12

5. Do you have grades other than 9-12? If so, which ones? _____

6. With what donomination (if any) is the school affiliated? Episcopal

7. Do you have required chapel of any kind? Yes What do you require?

Evering prayer on Sunday evenings.

8. Please tell us something about the physical plant - age of buildings etc. Main building housing administrative offices, classrooms and dormitory - built 1924. Gymnasium, Boiler Room - 1900. Art Building - 1900.

9. Do you have any kind of work program? No Describe it briefly

10. Do you have minority group members in your school? Yes

How many blacks? 1 Others? 1 - American Indian

11. If your school is a single sex school comment upon the extent of coordination with a school of students of the opposite sex.

Coordination exists in the areas of Science, Math and Language.

Secondary School Community Survey continued (School 15) Page two

12. Are there any special curcumstances in the school now or which have occurred recently of which the investigator should be aware?

None

A P P E N D I X C

Computer Time-Sharing Programs

Conversion to Standard Scores

```
100 PROGRAM STD
110 DIMENSION DA(100,10), DB(100,10),AMEAN(10),ASD(10)
112 PRINT 51
120 PRINT 10
130↑10 FORMAT (* INPUT NSCR*)
140 INPUT, NSCR
150 PRINT 20
160↑20 FORMAT (* INPUT NOBS*)
170 INPUT,NOBS
180 DO 30 I=1,NOBS
190↑30 READ, (DA(I,J),J=1,NSCR)
200 PRINT 31
210↑31 FORMAT (//* INPUT  ORIG. MEANS*)
220 INPUT, (AMEAN(L),L=1,NSCR)
230 PRINT 32
240↑32 FORMAT (* INPUT  ORIG. STD. DEVS*)
250 INPUT, (ASD(L),L=1,NSCR)
260 DO 40 I=1,NOBS
270 DO 40 J=1,NSCR
280 DB(I,J)=(DA(I,J)-AMEAN(J))/ASD(J)
290↑40 CONTINUE
294 PRINT 51
295 PRINT 39, 0., 1.
296↑39 FORMAT (* STANDARD SCORES, MEAN = *,F5.2,/
297C 8X,* STANDARD DEVIATION = *,F5.2//)
300 DO 50 I=1,NOBS
310 PRINT 52, I,(DB(I,J),J=1,NSCR)
320 WRITE (62,52), I,(DB(I,J),J=1,NSCR)
325↑52 FORMAT (I4,5F10.2)
330↑50 CONTINUE
340 PRINT 51
350↑51 FORMAT (1H1)
360 END
370 ENDPROG
```

Scheffé Method of Comparisons

```
200 PROGRAM SCHEFFE
210 DIMENSION NTIT(9)
220 NC=1
222 PRINT 9
223↑9 FORMAT (1H1)
230 PRINT 10,NC
240↑10 FORMAT (1X,*CONTRAST *,I3)
250 PRINT 11
260↑11 FORMAT (* INPUT LINE OF TITLE *)
270 INPUT, (NTIT(L),L=1,9)
271↑12 FORMAT (9A8)
280 PRINT 20
290↑20 FORMAT (//,* MEAN SQUARE ERROR INPUT*)
300 INPUT, AMS
310 PRINT 30
320↑30 FORMAT (/* INPUT THE N-S OF THE TWO GROUPS *)
330 INPUT, AN1,AN2
340 SYHT = AMS * (1/AN1 + 1/AN2)
350 PRINT 40, SYHT
360↑40 FORMAT (10X,*VARIANCE OF PSY HAT = *,F5.2)
370 SQSYHT = SQRT(SYHT)
380 PRINT 32,SQSYHT
390↑32 FORMAT (10X,*STD ERR. OF PSY HAT = *,F5.2/)
400 PRINT 50
410↑50 FORMAT (* INPUT MEANS 1 AND 2*)
420 INPUT, AM1,AM2
430 CONT = AM1 - AM2
440 PRINT 60, CONT
450↑60 FORMAT (/*        DIFFERENCE = *,F6.3)
460 RATIO = CONT / SQRT(SYHT)
470 PRINT 70, RATIO
480.70 FORMAT (///* RATIO (PSY HAT / STD ERR) = *,F8.3)
490 NC = NC + 1
500 GO TO 222
510 END
520 ENDPROG
```

Fifth Step in Scheffe Method

```
100 PROGRAM COMPARE
110  PRINT 10
120↑10 FORMAT (* INPUT NUMBER OF GROUPS*)
125 INPUT, AGN
130 PRINT 20
140↑20 FORMAT (* INPUT F VALUE FROM TABLE WITH J-1 AND N-J DF.*)
150 INPUT, FV
160  CRIV = SQRT((AGN-1)*FV)
170 NG = AGN
180 PRINT 30, NG,CRIV
190↑30 FORMAT (///* CRITICAL VALUE FOR *,I4,* GROUPS = *,F8.2)
200 END
210 ENDPROG
```

Pearson Product-Moment Correlation

```
10 PROGRAM CORREG
15 DIMENSION X(50)PY(50) RES(50) Y(50)
20 PRINT 30
30 FORMAT (* HOW MANY CASES DO YOU HAVE?*)
40 INPUT,N
42 PRINT 44
44 FORMAT (* IF INPUT KEYBOARD=0, DATA FILE=1*)
46 INPUT,KEYDATA
47 PRINT 48
48 FORMAT (* DO YOU WANT DATA LISTED? YES=1, NO=0*)
49 INPUT,LIST
50 XT = 0
60 YT = 0
70 XX = 0
80 YY = 0
90 XY = 0
100 AN = 0
110 DO 210 I=1,N
115 IF(KEYDATA)120,123,120
120 READ,X(I),Y(I)
121 GO TO 125
123 INPUT,X(I),Y(I)
125 IF(LIST)130,150,130
130 PRINT 140,X(I),Y(I)
140 FORMAT (2F8.2)
150 XT = XT + X(I)
160 XX = XX + (X(I) * X(I))
170 YT = YT + Y(I)
180 YY = YY + (Y(I) * Y(I))
190 XY = XY + (X(I) * Y(I))
200 AN = AN + 1
210 CONTINUE
220 SSQ = (AN * XY) - (XT * YT)
230 SX = (AN * XX) - (XT * XT)
240 SY = (AN * YY) - (YT * YT)
250 DIV = SQRTF(SX * SY)
260 COEF = SSQ/DIV
270 BVAL = SSQ/SX
280 XM = XT/AN
290 YM = YT/AN
300 XV = SX/((AN-1) * AN)
310 YV = SY/((AN-1) * AN)
320 DX = SQRTF(XV)
330 DY = SQRTF(YV)
340 AVAL = YM - (BVAL * XM)
```

Pearson Product-Moment Correlation continued

```
350 PRINT 360
360 FORMAT (1H1)
370 PRINT 380
380 FORMAT (16X,*MEAN*,8X,*SD*,9X,*N*,/)
390 PRINT 400,XM,DX,AN
400 FORMAT (* X VALUES=*,2F10.2,F10.0,/)
410 PRINT 420,YM,DY,AN
420 FORMAT (* Y VALUES=*,2F10.2,F10.0,/)
430 PRINT 440,COEF
440 FORMAT (//,5X,*CORRELATION =*,F5.3)
450 PRINT 460,AVAL,BVAL
460 FORMAT (//,5X,*A =*,F10.3,5X,*B =*,F10.3)
480 PRINT 490
490 FORMAT (* DO YOU WISH PRINTOUT OF RESID,YES=1, NO=0*)
510 INPUT,JOT
520 IF (JOT) 530,600,530
530 PRINT 540
540 FORMAT(//,5X,*Y VALUE*,10X,*EST Y*,10X,*RESIDUAL*,/)
541 DO 570 I=1,N
543 PY(I) = AVAL + (BVAL * X(I))
545 RES(I) = PY(I) - Y(I)
550 PRINT 560,Y(I),PY(I),RES(I)
560 FORMAT (7X,F5.2,10X,F5.2,12X,F7.4)
570 CONTINUE
600 STOP
610 END
620 END'PROG
```